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ABSTRACT

In the last 20 years, there has been a significant growth in the participation of adults in education and learning experiences, and a parallel growth in the awareness of the needs and desires of adults vis-a-vis education. The reasons for this growth include (1) the aging of the U.S. population; (2) the changing role of women in society; and (3) the declining enrollments of traditional college-age students combined with the evergrowing fiscal crisis in institutions of higher learning. This growth in participation in education and learning has consequences for the individual and society. This monograph is intended to provide a better and more comprehensive understanding of adult participation in learning activities. The paper first assesses participation in different types of education programs for different subgroups of the adult population. Possible reasons for participation are then explored, followed by a discussion of reasons for nonparticipation. The final section of the paper presents a summary, and policy and program implications. (KC)

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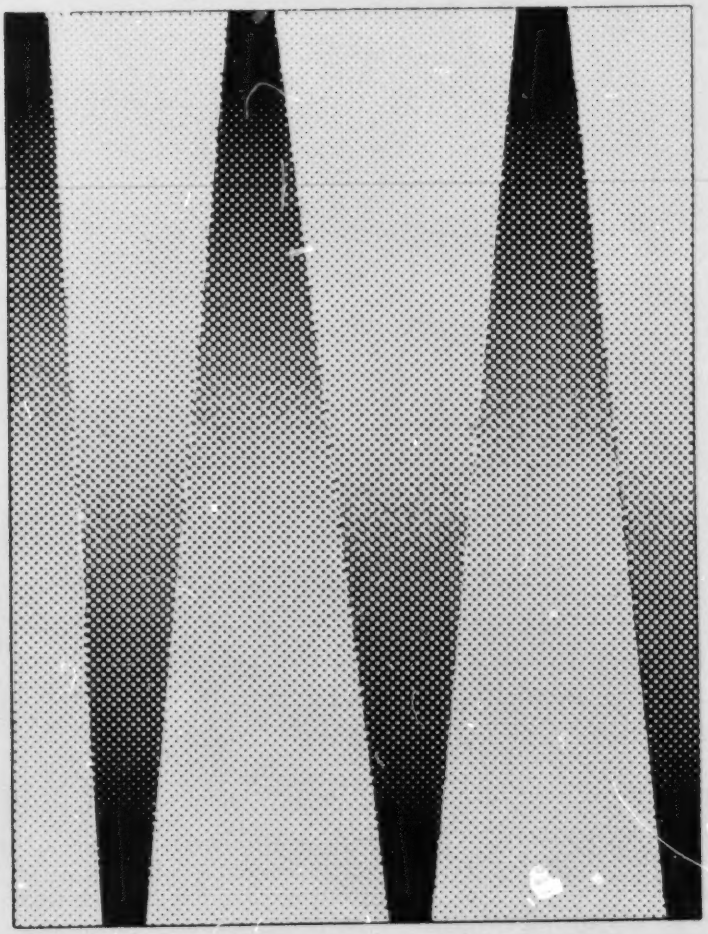

Patterns of Adult Participation in Learning Activities

CE 028 402

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The authors of the policy research papers in this series are knowledgeable analysts both from within and without the National Institute for Work and Learning. Their charge was to explore one or more issue areas which the project identified as being of significant interest to public and private sector decision makers concerned with shaping worker education and training policy and practice for the coming decade. Authors were asked to synthesize the relevant research bearing on the issue areas, to assess the knowledge base with a view to discerning the points of public and private policy relevance, and to use their best independent professional judgements in offering recommendations for action.

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FOREWORD

Observers of the U.S. education scene have, for at least a decade now, known that profound changes in the composition of the "American student body" are underway. One of the more manifest aspects of this change is the "age neutralization" of postsecondary education. Adult participation in postsecondary education has grown to unprecedented levels.

Public and private policy interest and need for a clearer understanding of this phenomena and its implications have followed this trend. Who in the adult population are participating in the adult education boom? Who are not engaged? What kinds of programs are adults electing to pursue? What are their motivations or reasons for going back to education? What are the reasons for non-participation? Are there significant barriers to participation that public or private actions could effectively reduce? These are but a few of the basic questions for which answers are being sought through government and privately sponsored research. How these questions are answered, interpreted and replied to by policy makers in government, industry, labor unions and education institutions will importantly influence the structure of organized learning opportunity in the 1980's, and the matter of who will have access to that opportunity.

This policy research monograph by Ivan Charner, Director of Research at the National Institute for Work and Learning (formerly NMI), represents an important contribution to meeting that need for better information. In the pages to follow, Mr. Charner provides the reader a concise, clearly presented synthesis of disparate research studies on adult participation in education and training. In so doing, he calls our attention, to weaknesses in the present data base and the caveats to be mindful of, particularly in using survey research study data. Beyond the valuable synthesis and new, independent analysis of important data, Mr. Charner charts out what the research identifies for priority actions. While the reader will guess correctly that development of better data is high on the list, others on that list may well be surprising.

This monograph will be an important reference guide to those in industry, in education, government and labor organizations responsible for human resource development policy and program development. Too, it will serve those in community based education, training and brokering activities to detect and challenge barriers to working adult participation in their programs and use of their services.

Gregory B. Smith
Director
Worker Education and Training Policies
Project

TABLE OF CONTENTS

Section	Page
TABLE OF CONTENTS	vii
LIST OF TABLES	ix
LIST OF FIGURES	xi
I. INTRODUCTION	1
II. DEMOGRAPHIC CHARACTERISTICS AND PARTICIPATION	4
Age	8
Race	11
Gender	15
Prior Educational Level	15
Employment Status	21
Income	21
Type of Occupation	25
Industry	29
Region	29
III. REASONS FOR PARTICIPATION	32
IV. REASONS FOR NONPARTICIPATION	45
Situational Factors	45
Social-Psychological Factors	49
Institutional Factors	51
V. SUMMARY AND POLICY IMPLICATIONS	52
Summary	53

Recommendations 55
Data Needs 55
Support Services 57
Instruction 60
APPENDIX A: DATA SOURCES ON ADULT LEARNING, EDUCATION, AND TRAINING . . 63
REFERENCES 67

LIST OF TABLES

Table		Page
1	ADULT PARTICIPATION IN EDUCATION: 1957, 1969, 1972, 1975 . .	6
2	PARTICIPATION IN ADULT EDUCATION BY AGE: 1969, 1972, 1975 . .	10
3	PARTICIPATION IN TUITION-AID PLANS BY AGE: 1977-78	12
4	PARTICIPATION IN ADULT EDUCATION BY RACE: 1969, 1972, 1975 .	13
5	PARTICIPATION IN ADULT EDUCATION BY GENDER: 1969, 1972, 1975	16
6	PARTICIPATION IN ADULT EDUCATION BY PRIOR EDUCATION LEVEL: 1969, 1972, 1975	20
7	PARTICIPATION IN ADULT EDUCATION BY EMPLOYMENT STATUS: 1969, 1972, 1975	22
8	PARTICIPATION IN ADULT EDUCATION BY INCOME: 1969, 1972, 1975	24
9	PARTICIPATION IN TUITION-AID PLANS BY INCOME: 1969, 1972, 1975	26
10	PARTICIPATION IN INDUSTRY-SPONSORED EDUCATION AND TRAINING PROGRAMS BY TYPE OF INDUSTRY	30
11	REASONS FOR ADULT PARTICIPATION IN LEARNING ACTIVITIES	33
12	MAIN REASON FOR TAKING COURSE FOR ADULT EDUCATION PARTICIPANTS: 1969, 1972, 1975	35
13	DESCRIPTION OF COURSE FOR ADULT EDUCATION PARTICIPANTS: 1969, 1972, 1975	36
14	MAIN REASON FOR TAKING COURSE BY PRIOR EDUCATIONAL LEVEL OF PARTICIPANTS: 1975	39
15	DESCRIPTION OF COURSE BY PRIOR EDUCATIONAL LEVEL OF PARTICIPANTS: 1975	41
16	MAIN REASON FOR TAKING COURSE BY RACE AND GENDER OF PARTICIPANTS: 1975	42
17	DESCRIPTION OF COURSE BY RACE AND GENDER OF PARTICIPANTS: 1975	44
18	REASONS FOR ADULTS NOT PARTICIPATING IN LEARNING ACTIVITIES .	46

LIST OF FIGURES

Figure		Page
1	PARTICIPATION IN ADULT EDUCATION BY AGE: 1975	9
2	PARTICIPATION IN ADULT EDUCATION BY RACE: 1975	13
3	PARTICIPATION IN ADULT EDUCATION BY GENDER: 1975	16
4	PARTICIPATION IN ADULT EDUCATION BY PRIOR EDUCATIONAL LEVEL: 1975	19
5	PARTICIPATION IN ADULT EDUCATION BY INCOME: 1975	23
6	PARTICIPATION IN ADULT EDUCATION BY OCCUPATION: 1975	27
7	PARTICIPATION IN ADULT EDUCATION BY INDUSTRY: 1975	28
8	PARTICIPATION IN ADULT EDUCATION BY REGION: 1975	31
9	WORKER ASSESSMENTS OF THE IMPORTANCE OF VARIOUS OUTCOMES OF FURTHER EDUCATION AND TRAINING	38

I. INTRODUCTION

In the last twenty years, the United States has witnessed a significant growth in the participation of adults in education and learning experiences. Moreover, there has been a parallel growth in the awareness of the needs and desires of adults vis-a-vis education. As a result, new programs for adult learners are being developed at all levels of education from elementary to university and through business, unions, and community-based organizations.

The reasons for this growth are multiple. First, the adult population is larger than it has ever been. In 1976, almost 137 million people were age 21 or older. By the year 2000, the median age of the U.S. citizenry will be 34.8, with an estimated 187 million people age 21 or older. This demographic shift to an older citizenry has already impacted the educational system which has witnessed a growth in the number of adults participating at all levels. A second reason is the changing role of women in society over the past decade. The increasing numbers of women re-entering the paid labor force or desiring to do so has resulted in an increase in educational participation to help ease this transition.

The declining enrollments of traditional college age students combined with ever growing fiscal crisis is a third reason. Institutions of higher education are seeking out new clients and the adult learner represents a new market for these institutions. A fourth reason may be increased amounts of available leisure time. With more free time,

educational and learning activities become an option for more adults. The higher levels of education attained by the adult population will also cause increases in educational participation. Education appears to be addictive, with those having more wanting more. Finally, the tightening of the labor market results in mobility patterns that are increasingly horizontal rather than vertical. That is, rather than being able to move up on a job or in a career, more workers will be changing careers, which will require, in many instances, additional education or training.

That this growth in participation in education and learning is increasing has consequences for the individual and society. A better understanding of the patterns of participation is needed, however, in order that program and policy proposals can be developed which respond to the unmet needs of adults for education. It is the purpose of this paper to provide a better and more comprehensive understanding of adult participation in learning activities. The paper first assesses participation in different types of education programs for different subgroups of the adult population. Possible reaons for participation are then explored, followed by a discussion of reasons for nonparticipation. The final section of the paper presents a summary and policy and program implications.

Before entering into a discussion of participation, it is important to provide a brief discussion of what is meant by learning, education, and training and how a knowledge of patterns of participation can be used for program and policy purposes.

Any distinction between learning, education, and training is an artifact of one's position or of how the terms are used for program purposes. As a result, the distinction for some is quite clear while for others the three terms are synonymous. The debate over the terms has

focused primarily on education and training. At one extreme of this debate are those who envision a continuum with training at one end and education at the other. Training is viewed in terms of measurability, narrowness of subject matter, well-defined range of use, and relevance to a particular time and place, while education involves exposure to contrasting assumptions and views, personal and intellectual initiatives, and the less constrained range of use (Branscomb and Gilmore, 1975). The middle ground of the debate is represented by those who suggest that:

> The purpose of training is to develop certain automatic facilities as in languages, bookkeeping, and the operation of machines. The function of education, however, is to provide the student with the capacity for analyzing and solving problems that are confronted in ones' occupation, society, and within oneself (Buckingham, 1961).

At the other extreme of the debate are those who define education broadly to encompass "... both formal and informal training, instruction, observation and experience" (Gilpatrick, 1975).

For the purposes of this paper it is necessary to draw distinctions between adult learning, adult education, and adult training. A hierarchy of definition will be used in this paper. When each term is used, it will reflect the following differentiation:

- Adult learning is a process whereby individuals, 17 years or older, undertake formal or informal, organized or nonorganized activities with the intention of bringing about changes in information, knowledge, understanding, or skills.
- Adult education is a process whereby individuals, 17 years or older, undertake formal or organized activities with the intention of bringing about changes in information, knowledge, understanding, or skills.

- Adult training is a process whereby individuals, 17 years or older, undertake formal or organized activities with the intention of acquiring new information, knowledge, understanding, or skills related to the roles and routines of a job or work position.

In order for programs and policies to respond to the learning needs of adults, it is important to understand patterns of participation in terms of who participates and why, and who does not participate and why. For program purposes, understanding patterns of participation is useful when instructional materials and methods are being developed or support services considered. That is, different population groups may require different methods of delivery or support services (brokering, counseling, remedial tutoring, etc.), and a knowledge of participation patterns can provide critical information for such decisions. Policy decisions at the organization, institution, or government level can also be affected by such information. Policies regarding financing, certification requirements, outreach and placement services, and public-private linkages require knowledge of patterns of participation, so that such policies can be responsive. An understanding of who participates; where, why, and when they participate; and problems/barriers faced by adults is important for program and policy decisions to be responsive to the needs of adults generally and for specific subgroups of the adult population.

II. DEMOGRAPHIC CHARACTERISTICS AND PARTICIPATION

In the discussion that follows, a description of the patterns of participation of adults in learning activities is presented. Whenever possible, trends for various subgroups of adult learners are provided.

In addition, patterns will be examined for different types of learning programs including adult education, adult learning, industry-sponsored education and training, and tuition assistance. Because information has not been systematically collected to allow for comparisons between programs or subgroups of adults, there are many gaps in the knowledge base. There is, however, sufficient information to present a relatively broad and comprehensive picture of the patterns of participation in learning activities by the adult population.

Estimates of the total level of learning activities will vary depending on the definitions employed. When adult learning is looked at, estimates range as high as 79 to 98 percent of the adult population (Tough, 1975; Penland, 1977). When informal learning is excluded and only adult education participants are studied, the estimate is 17 million or 11.6 percent of the eligible adult population (Boaz, 1978).

For the description that follows, unless otherwise noted, the National Center for Education Statistics report on participation in 1975 (Boaz, 1978) is the primary source of data for participation in adult education programs. Data on education and training in industry comes from Lusterman (1977) and information on tuition-aid participation comes from O'Meara (1970), Abramovitz (1977), and Charner et al. (1978). Information on adult learning comes from findings of the College Board's study of adult learners (Bonham, 1979) and a study of adult learning interests and experiences (Carp et al., 1978). While these sources provide estimates that more than likely underestimate the magnitude of activities, they represent the most detailed data available on the issues under study. A description of these data sources appears in Appendix A.

In Table 1, participation rates for adult education for four time periods are presented. The data show a gradual increase in the absolute

TABLE 1

ADULT PARTICIPATION IN EDUCATION:
1957, 1969, 1972, 1975*

Year	Participants in Adult Education (in thousands)	Participation Rate
1957	8,270	7.6%
		(57.7*)
1969	13,041	10.0%
		(20.7)
1972	15,734	11.3%
		(8.4)
1975	17,059	11.6%

Source: NCES reports and surveys

*Percent change from one to another in parentheses (e.g., 1957-1969, 1969-1972 and 1972-1975).

number of participants and percentage of participation from 8 million (7.6%) in 1957 to 17 million (11.6%) in 1975. While absolute numbers and percentages of participants in adult education have been increasing, the rate of increase or growth[1] has been slowing down. Between 1957 and 1969, the adult population increased by 20.2 percent while the numbers of participants in adult education increased by 57.7 percent.[2] Between 1969 and 1972, the corresponding figures are a 6.6 percent increase in the adult population and a 20.7 percent increase in participants. Finally, between 1972 and 1975, the population grew by 5.4 percent and the participants by 8.4 percent.

For training offered by companies, the rate of participation is very similar. Lusterman (1977) found that approximately 4.4 million (13%) workers participated in on-the-job or other training programs. Unfortunately, data are unavailable on earlier time periods to allow for comparisons or trends in participation rates.

The overall participation rates for tuition-aid programs are considerably lower. O'Meara (1970), AT&T (1977), and Momeni and Charner (1979) all found participation at between three and five percent of eligible employees. When this figure is put into the context that over 90 percent of companies have tuition-aid plans for their workers (Lusterman, 1977), this benefit seems to be greatly underutilized.

For adult education, industry-sponsored education and training, and tuition-aid, the rates of participation seem to be relatively low. In

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[1] Rates of increase or change in participation between time periods is calculated in the following manner. The number of participants for a prior data collection point (1972) are subtracted from the next data point (1975). The result is then divided by the number of participants in the earlier data point. For example, in 1972 there were 15,734,000 participants. Subtracting this from the 17,059,000 participants in 1975 results in 1,325,000. Dividing this by 15,734,000 results in a rate of change of 8.4 percent.

[2] These large increases are due, in part, to the twelve year time period between the two data collection points.

actual numbers, however, these percentages represent approximately 22 million adults. Are different categories of adults overrepresented in this 22 million? Are certain characteristics more highly associated with participation? The remainder of this section tries to answer these questions by looking at participation rates for different demographic subgroups of the adult population.

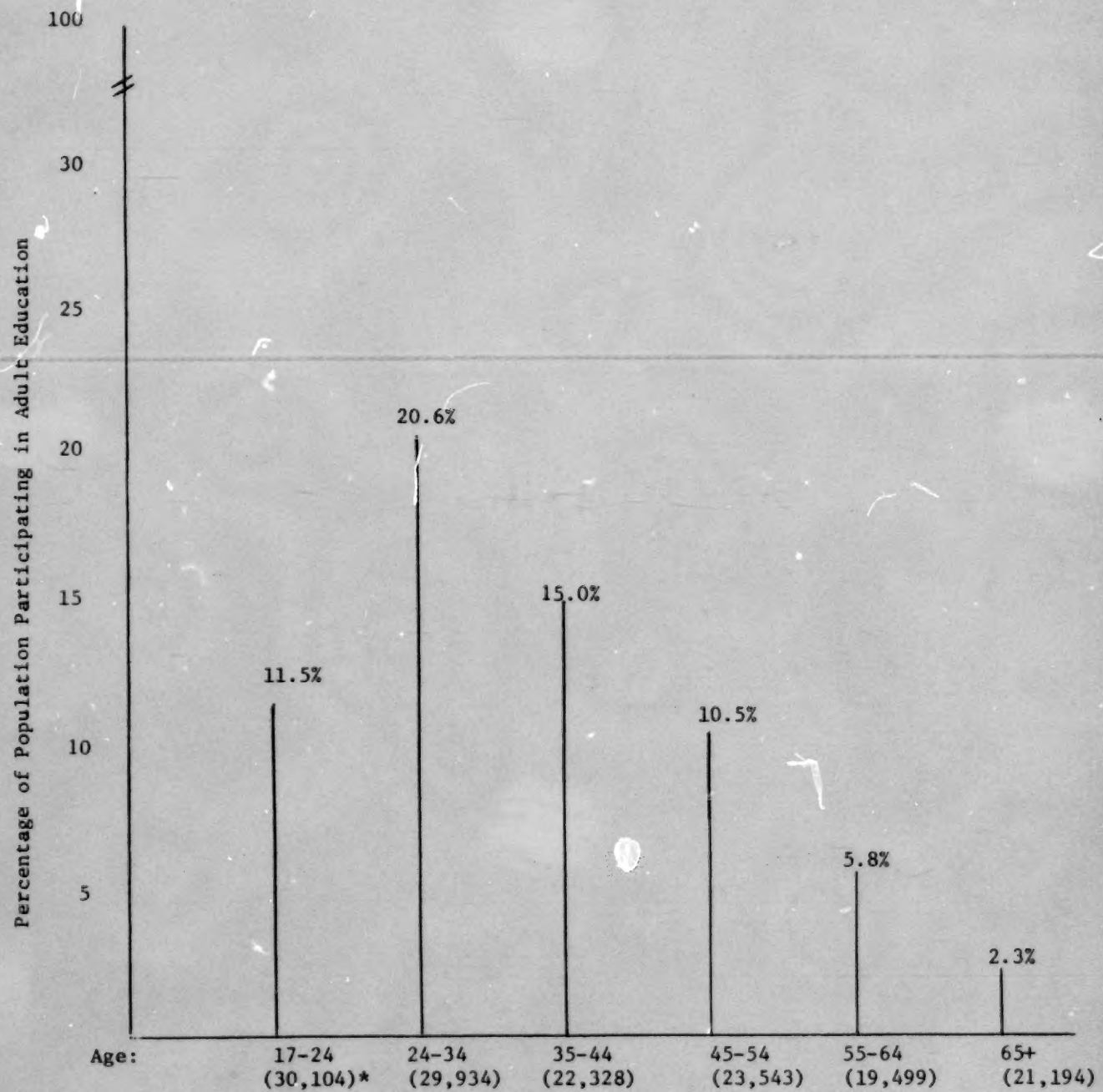
Age

Age is clearly related to participation in adult education. Figure 1 shows a substantial increase between the first (17 and 24) and second (24-34) age groups and then a consistent decline to age 55. After 55, participation rates drop off sharply. The highest rate is found in the 24-34 year old group (20.6%) and the lowest in the 65 years or more group (2.3%). Table 2 presents the trends over time and shows that for each age group participation has increased between 1969 and 1975. The rate of change, however, has been declining for all three age groups. Specifically, for the 17-34 year old group the rate of change between 1969 and 1972 was 24.3 percent. The rate drops to 11.1 percent between 1972 and 1975. For the 35-54 year old group, the rates of change were 13.9 percent and 1.8 percent for the same time periods, and for the 55+ group the rates of change were 30.1 percent and 19.3 percent. It is interesting to note, however, that while the 55+ group has the lowest percentage of participation in all three years, it had the largest rates of increase between time periods.

When adult learning is considered, the findings are very similar. Adult learners are considerably younger than nonlearners, with twice as many learners and nonlearners coming from the 25-29 age group. Also, half of all adult learners are under 40 years of age (Carp et al., 1974; Bonham, 1979).

FIGURE 1

PARTICIPATION IN ADULT EDUCATION BY AGE: 1975



*Base n (in thousands) for each adult population group. Percent is of this number.

SOURCE: Boaz, 1978

TABLE 2

PARTICIPATION IN ADULT EDUCATION BY AGE:
1969, 1972, 1975

Age	Year 1969 Participants (in thousands)	1969 Rate of Participation	1972 Participants (in thousands)	1972 Rate of Participation	1975 Participants (in thousands)	1975 Rate of Participation	Rate of Change 1969-1972	Rate of Change 1972-1975
17-34	6,956	14.4%	8,644	15.9%	9,604	16.0%	24.3%	11.1%
35-54	5,037	11.0%	5,727	12.5%	5,829	12.7%	13.9%	1.8%
55+	1,048	2.9%	1,363	3.5%	1,627	4.0%	30.1%	19.4%

SOURCE: Boaz, 1978

21

For participants in tuition-aid plans, the association with age is also obvious (Charner et al., 1978; Abramovitz, 1977). Table 3 shows the percent of participants decline as age increases. Younger workers (30 or less) make up almost 61 percent of participants, yet represent less than half of the eligible population of workers surveyed in the study. Participation in adult education, adult learning, and tuition-aid plans, then, is related to age, with younger adults participating at a considerably higher rate than older adults.

Race

Race, like age, is also related to participation.[3] In 1975, 12.1 percent of whites participated in some form of adult education compared to only 6.9 percent of blacks (see Figure 2). Moreover, the participation of blacks declined from 1969 to 1975, as can be seen in Table 4. In the same time period, rates for whites increased by almost 2 percent. When rates of change are calculated, the rates for whites are considerably higher than for blacks. For blacks, the rates of change between 1969 and 1972 and between 1972 and 1975 were 2.9 percent and 2.0 percent, respectively, while for whites the corresponding percentages were 21.7 and 8.4.

For adult learning, race is also a factor. Blacks contribute considerably less than their proportionate share of learners, while whites supply a little more, and others considerably more than their share of learners (Bonham, 1979). A similar pattern emerges for use of tuition-aid benefits with lower percentages of blacks participating compared to whites. (Charner et al., 1978; Abramovitz, 1977).

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[3]Because the "other" category is small in numbers and not specified, the discussion is limited to a comparison of whites and blacks. We assume that the "other" category includes Hispanics, Asian Americans, and Native Americans.

TABLE 3

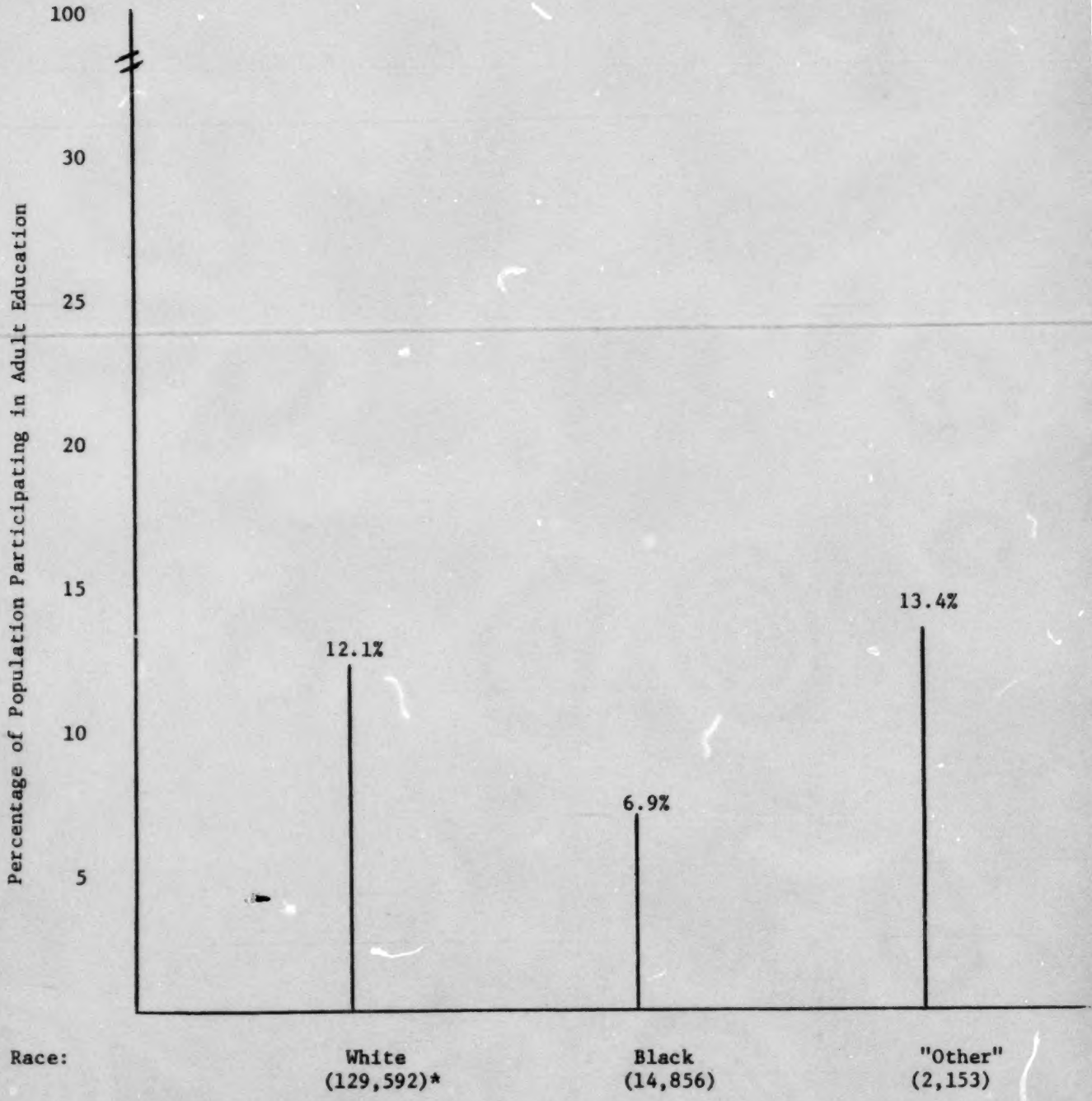
PARTICIPATION IN TUITION-AID PLANS BY AGE: 1977-78*

Age	Participants in Tuition-Aid	Percentage
Under 25	45	18.5%
25-34	103	42.4%
35-44	64	26.3%
45-54	23	9.5%
55+	243	3.3%

*The sample of workers on which this is based is overrepresentative of workers interested in education and training. Of the 910 workers in the original sample, 428 (47 percent) were 34 years old or less.

Source: Charner et al., 1978

FIGURE 2
PARTICIPATION IN ADULT EDUCATION BY RACE: 1975



*Base n (in thousands) for each adult population group. Percent is of this numbe

SOURCE: Boaz, 1978

TABLE 4

PARTICIPATION IN ADULT EDUCATION BY RACE:
1969, 1972, 1975

Race	Year 1969 Participants (in thousands)	1969 Rate of Participation	1972 Participants (in thousands)	1972 Rate of Participation	1975 Participants (in thousands)	1975 Rate of Participation	Rate of Change 1969-1972	Rate of Change 1972-1975
Black	982	7.8%	1,011	7.4%	1,031	6.9%	2.9%	2.0%
White	11,928	10.2%	14,518	11.7%	15,739	12.1%	21.7%	8.4%
"Other"	131	10.5%	205	13.9%	289	13.5%	56.4%	41.0%

SOURCE: Boaz, 1978

Gender

Gender, as of 1975, does not seem to be related to participation in adult education. As Figure 3 shows, rates of participation are about equal for women and men. This equality of participation rates is, however, a recent phenomenon. As Table 5 shows, 9.0 percent of women compared to 11.2 percent of men participated just six years earlier. By 1972, the difference had dropped to 1.1 percent, with 10.8 percent of women and 11.9 percent of men participating. The narrowing of the gap between men and women is due more to an increase in womens' rates than to a decrease in mens' rates of participation. Women showed increases of 28.1 percent between 1969 and 1972 and 13.0 percent between 1972 and 1975, compared to 13.8 percent and 3.7 percent for men in the same time periods. Most of these gains, however, were for white women and not for black women (Boaz, 1978).

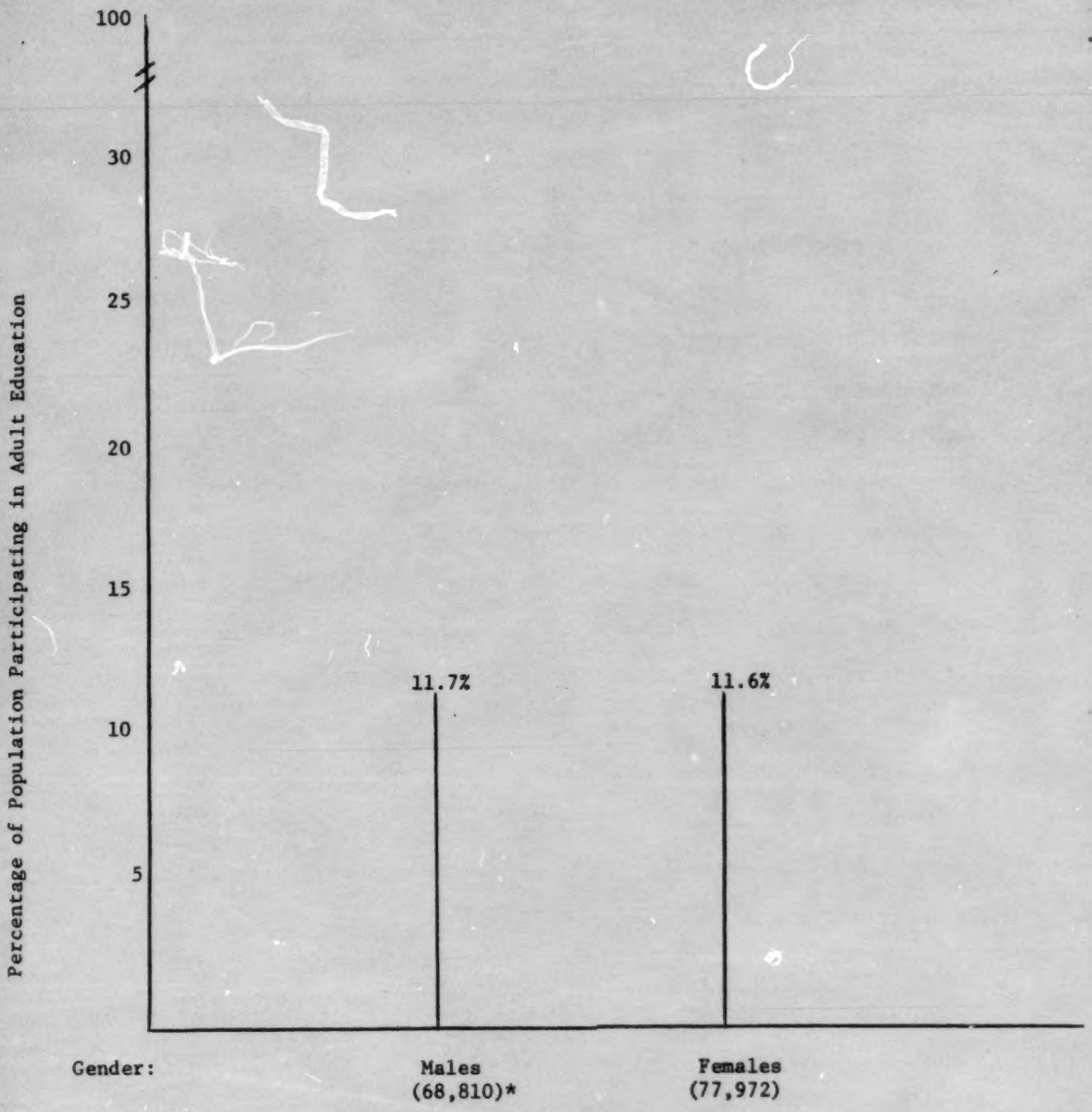
The available data for adult learning show similar results. No differences were found in adult learning between men and women (Carp et al., 1974; Bonham, 1979). For use of tuition-aid, however, findings are mixed. Abramovitz (1977) found that womens' use of tuition-aid was considerably lower than mens', with 16 percent of women and 40 percent of men reporting use of tuition-aid benefits. Charner et al. (1978), however, found 30.1 percent of women and 29.9 percent of men using tuition-aid. Of all participants, 82.3 percent were men and 17.7 percent were women, which correspond to their distribution in the population of workers surveyed in that study.

Prior Educational Level

Education has been said to be addictive. Of all the characteristics of adults, prior educational level is more closely related to participation

FIGURE 3

PARTICIPATION IN ADULT EDUCATION BY GENDER: 1975



*Base n (in thousands) for each adult population group. Percent is of this number.

SOURCE: Boaz, 1978

TABLE 5

PARTICIPATION IN ADULT EDUCATION BY GENDER:
1969, 1972, 1975

Gender	Year 1969 Participants (in thousands)	1969 Rate of Participation	1972 Participants (in thousands)	1972 Rate of Participation	1975 Participants (in thousands)	1975 Rate of Participation	Rate of Change 1969-1972	Rate of Change 1972-1975
Male	6,800	11.2%	7,738	11.9%	8,047	11.7%	13.8%	3.7%
Female	6,241	9.0%	7,995	10.8%	9,032	11.6%	28.1%	13.0%

SOURCE: Boaz, 1978

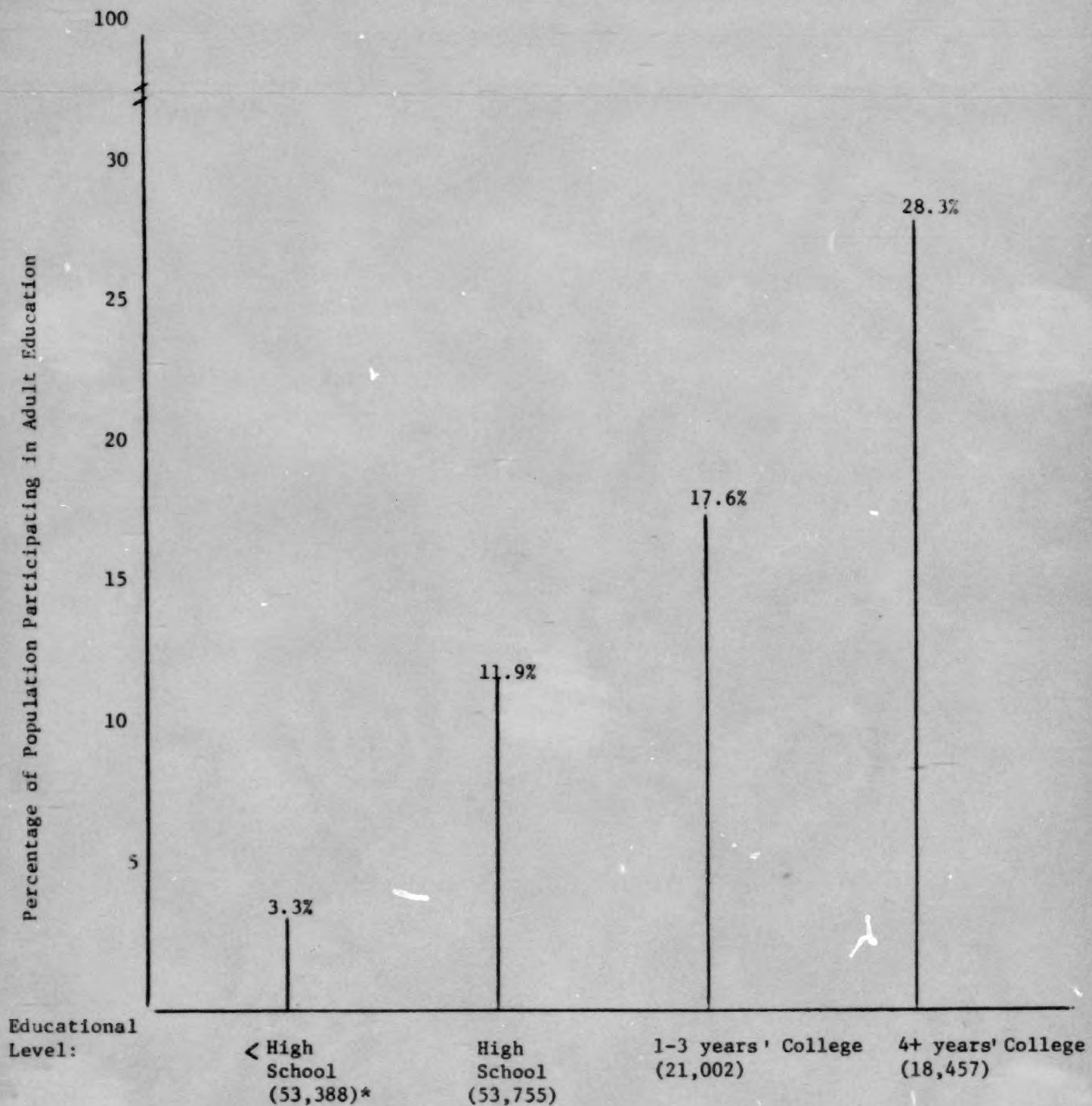
than any other characteristic. The more formal education adults have, the more likely they are to participate in further education. Figure 4 clearly shows this relationship, with large percentage increases corresponding to increases in educational levels. Specifically, for adults with less than twelve years of schooling, the rate of participation is 3.3 percent, while for those with four more years of college the rate is 28.3 percent. The relationship is even more apparent when trends over time and changes in rates are studied. Table 6 shows that rates of participation are relatively constant for all groups between 1969 and 1975. The rates of change show large increases between 1969 and 1972 for all groups except those with less than high school completion. For 1972 to 1975, the rates of change decreased substantially for all groups, with the lowest educational background actually witnessing a negative 15 percent growth rate. That means that the number of adults in this group who participated was lower in 1975 than in 1972.

For adult learning the findings are very similar. Adults engaged in learning activities have considerably higher levels of prior education than adults not participating in learning activities. Adults with postsecondary education are twice as likely to participate in learning activities than those without such education. About one in five adults with less than eight years of schooling participates in learning (Bonham, 1979).

The percentages for participants in tuition-aid plans are equally as dramatic (Charner et al., 1978). Of the 242 participants, 4.1 percent had less than high school completion, compared to 14.9 percent, 67.4 percent, and 13.6 percent for workers with high school completion, 1-3 years of college, and 4 or more years of college respectively. Over

FIGURE 4

PARTICIPATION IN ADULT EDUCATION BY PRIOR EDUCATIONAL LEVEL: 1975



*Base n (in thousands) for each adult population group. Percent is of this number.

SOURCE: Boaz, 1978

TABLE 6

PARTICIPATION IN ADULT EDUCATION BY PRIOR EDUCATIONAL LEVEL: 1969, 1972 1975

Education Level	Year 1969 Participants (in thousands)	1969 Rate of Participation	1972 Participants (in thousands)	1972 Rate of Participation	1975 Participants (in thousands)	1975 Rate of Participation	Rate of Change 1969-1972	Rate of Change 1972-1975
Less than 4 years' High School	1,985	3.5%	2,066	3.7%	1,756	3.3%	4.0%	-15.0%
Four years' of High School	5,067	11.3%	5,916	11.9%	6,396	11.9%	16.8%	8.1%
1-3 years' College	2,576	16.6%	3,373	18.3%	3,687	17.6%	30.9%	9.3%
4 or more years' College	3,413	27.0%	4,379	29.1%	5,220	28.3%	28.3%	19.2%

SOURCE: Boaz, 1978

70 percent of the participants had more than a high school degree which compares to 59 percent of the total population of workers surveyed in that study.

Employment Status

Employment status is also related to participation in adult education. Table 7 presents data on this relationship for 1969, 1972, and 1975. In 1975, 15.4 percent of those adults who were employed participated, compared to 10.8 percent for those unemployed and 7.7 percent for those keeping house. Changes in participation show the most dramatic increases for the unemployed group. Again, however, for all these groups, the rate of increase declined between 1969-1972 and 1972-1975. Employment status is also strongly related to participation in adult learning, with employed adults far more likely to engage in learning activities than unemployed adults (Carp et al., 1974; Bonham, 1979).

Income

Income is found to be associated with participation. From Figure 5 it can be seen that as income increases, so do rates of participation, from 5.0 percent for those with incomes of less than $5,000 to 17.7 percent for those who earn $25,000 or more. It is interesting to note, however, that for all but the two highest income groups, rates of participation decreased from 1972 to 1975 (see Table 8). Changes in participation rates show increases for almost all income groups between 1969 and 1972. Between 1972 and 1975, however, only the highest two groups showed increases in rates, and even for these, the rate of increase declined over 1969-1972. This information suggests that not only do the lower income groups have lower rates of participation in education, but the situation for these groups is worsening.

TABLE 7

PARTICIPATION IN ADULT EDUCATION BY EMPLOYMENT STATUS:
1969, 1972, 1975

Employment Status	Year 1969 Participants (in thousands)	1969 Rate of Participation	1972 Participants (in thousands)	1972 Rate of Participation	1975 Participants (in thousands)	1975 Rate of Participation	Rate of Change 1969-1972	Rate of Change 1972-1975
Employed	10,216	13.4%	11,982	15.0%	12,782	15.4%	17.3%	6.7%
Unemployed	245	10.5%	529	12.1%	810	10.8%	115.9%	53.1%
Keeping House	2,243	6.5%	2,723	7.6%	2,705	7.7%	21.4%	- 0.01%

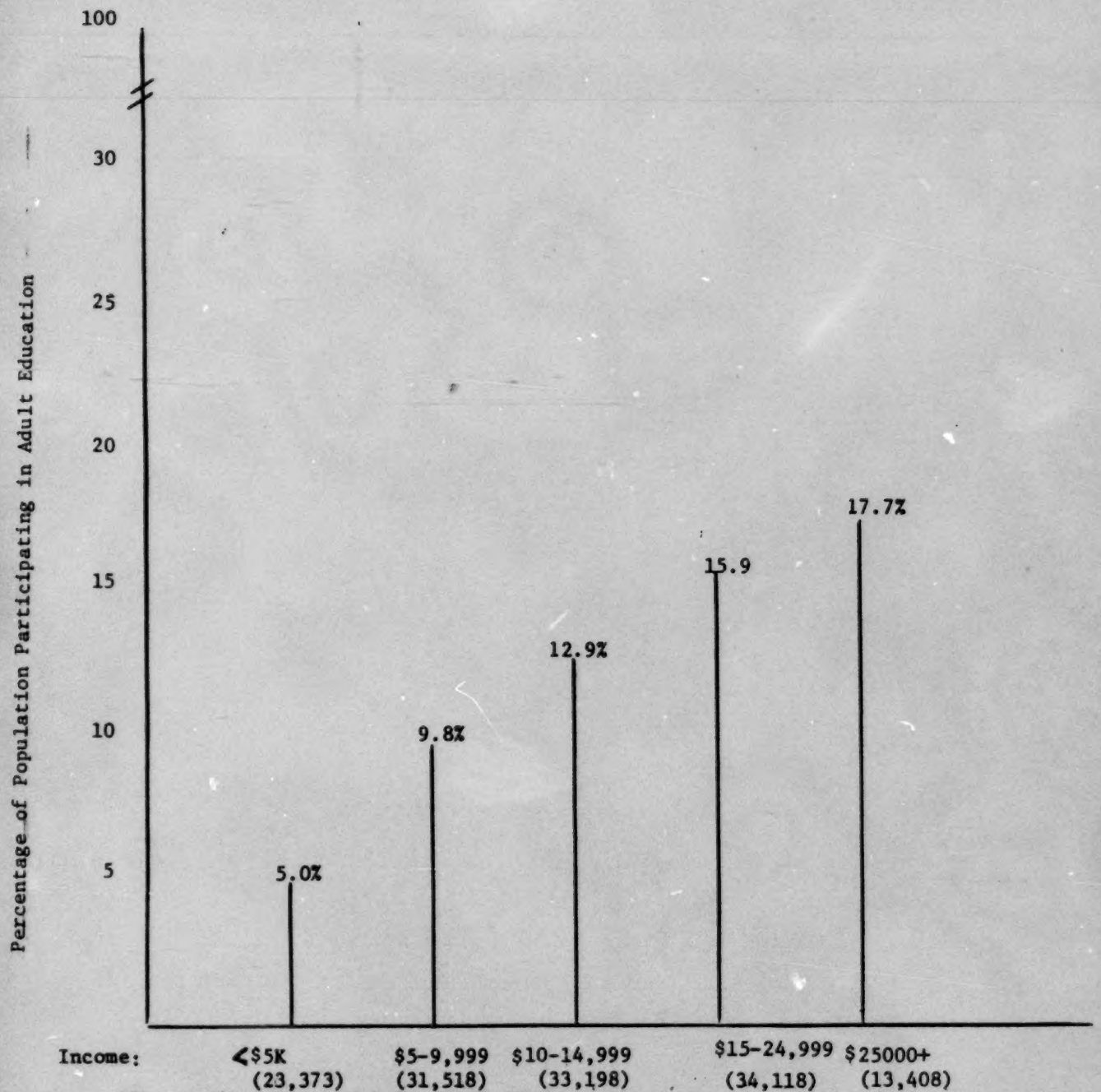
SOURCE: Boaz, 1978

37

38

FIGURE 5

PARTICIPATION IN ADULT EDUCATION BY INCOME: 1975



*Base n (in thousands) for each adult population group. Percent is of this number.

SOURCE: Boaz, 1978

TABLE 8

PARTICIPATION IN ADULT EDUCATION BY INCOME:
1969, 1972, 1975

Income	Year 1969 Participants (in thousands)	1969 Rate of Participation	1972 Participants (in thousands)	1972 Rate of Participation	1975 Participants (in thousands)	1975 Rate of Participation	Rate of Change 1969-1972	Rate of Change 1972-1975
Under $5,000	1,355	4.3%	1,621	5.6%	1,169	5.0%	19.6%	-27.9%
$5 - 9,999	4,124	9.0%	3,968	9.9%	3,102	9.8%	-3.8%	-21.8%
$10 - 14,999	3,799	11.7%	4,794	14.1%	4,294	12.9%	26.2%	-10.4%
$15 - 24,999	2,248	13.2%	3,626	17.2%	5,498	15.9%	61.3%	49.1%
$25,000+	516	13.9%	1,166	17.1%	2,372	17.7%	126.0%	103.4%

SOURCE: Boaz, 1978

With regard to adult learning, the findings are very similar. Adults with high income are more likely to engage in learning activities, with twice as many learners as nonlearners coming from families with incomes in excess of $25,000. Above $10,000 income, learners outnumber nonlearners, while below this income level, participation rates are reversed (Bonham, 1979).

In Table 9, the percentage of participants in tuition-aid plans from each income group is presented. There is a tendency for participants to come from the higher income levels, with 51.6 percent of participants earning $15,000 or more. This compares to 48 percent of the total population of workers from the study who earned $15,000 or more. It must be cautioned, however, that the sample on which these figures are based is relatively highly paid, unionized, and interested in education and training. Thus, the percentages for the lower income groups are probably slightly inflated.

Type of Occupation

Type of occupation is also related to participation in adult education. As Figure 6 shows, certain occupation groups have higher participation rates than other groups. Specifically, professional/technical (34.0%), managers (16.3%), sales (16.3%), and clerical (16.7%) occupations have higher rates than other occupational groups. It seems that the more highly paid, highly skilled, and highly educated occupational groups have higher rates than those groups which are lower paid, less skilled, and less educated. In fact, the professional group has a rate that is over twice as high as the next highest group.

The findings are quite similar for adult learning. Of all occupational groups, adults in the professional and technical fields are the

TABLE 9

PARTICIPATION IN TUITION-AID PLANS BY INCOME: 1977-1978*

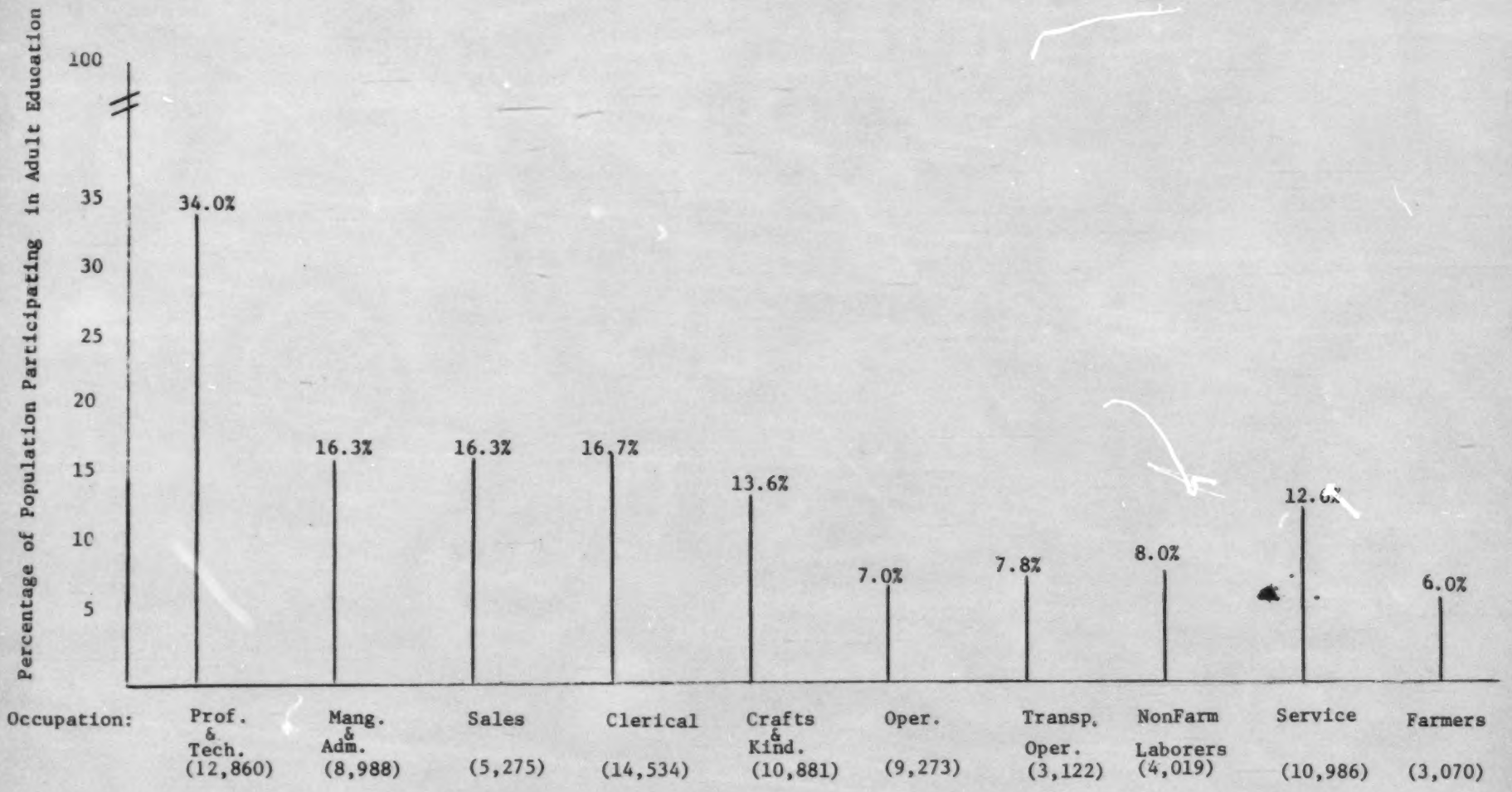
Income	Participants in Tuition-Aid	Percentage
less than $7,500	7	2.7%
$7,500-9,999	16	6.2%
$10 - 14,999	103	39.6%
$15 - 24,999	119	45.8%
$25,000 or more	15	5.8%

*Of the 910 workers in the original sample, 437 (48 percent) earned $15,000 or more.

SOURCE: Charner et al., 1978.

FIGURE 6

PARTICIPATION IN ADULT EDUCATION BY OCCUPATION: 1975

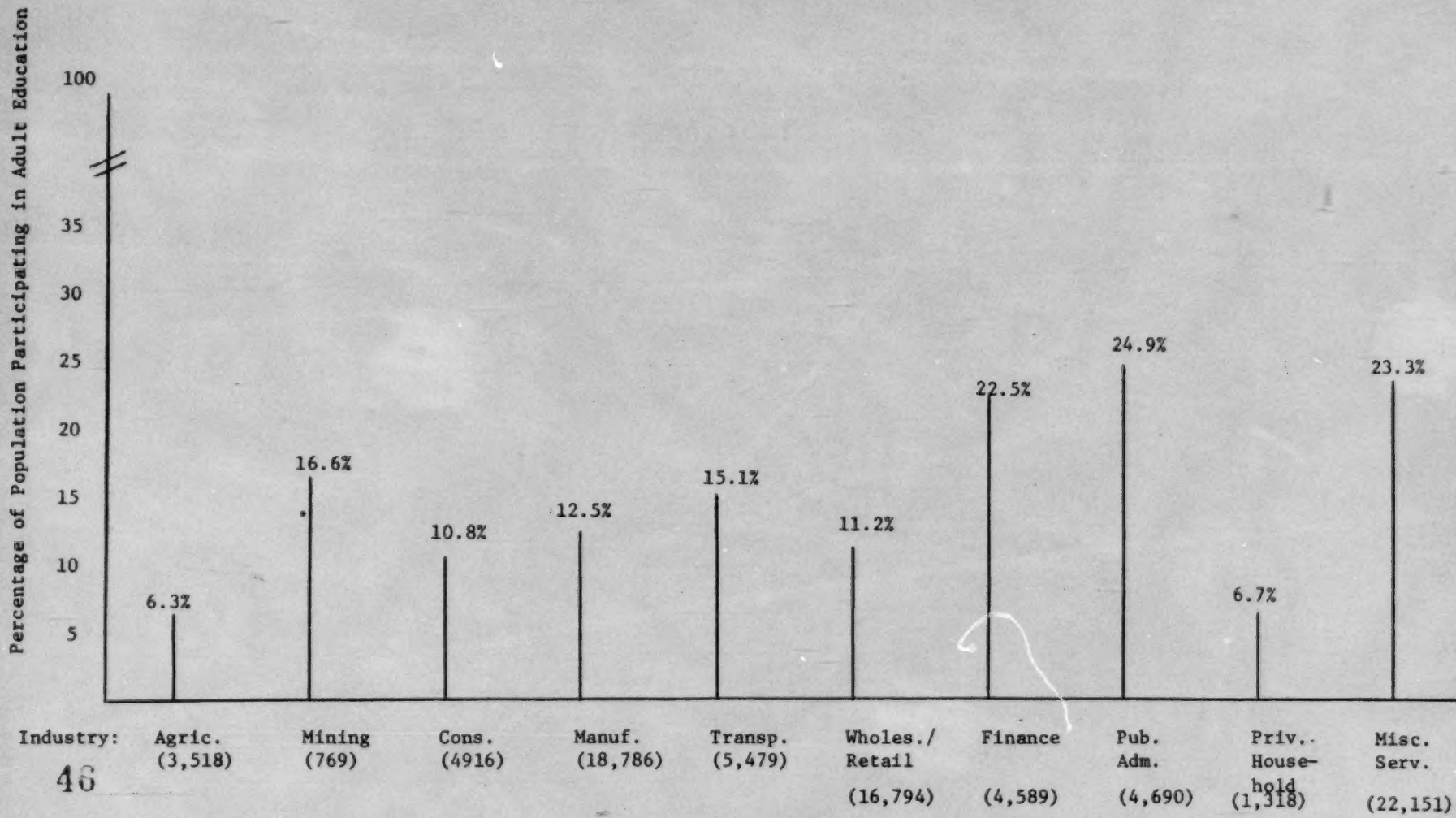


*Base n (in thousands) for each adult population group. Percent is of this number.

SOURCE: Boaz, 1978

FIGURE 7

PARTICIPATION IN ADULT EDUCATION BY INDUSTRY: 1975



*Base n (in thousands) for each adult population group. Percent is of this number.

SOURCE: Boaz, 1978

most likely to participate, while those in farming are least likely to participate. Here again, there seems to be a clear relationship between the amount of education or training required to enter an occupation and the need or desire for more learning (Bonham, 1979). For industry education and tuition-aid participation, the general trends are for managers and professionals to participate at higher rates than skilled and semi-skilled workers (Lusterman, 1977; O'Meara, 1970).

Industry

Participation in adult education is also related to industry affiliation. Figure 7 presents the rate of participation by industry. The figure shows that public administration (24.9%), miscellaneous service (23.3%), and finance (22.5%) industries have higher participation rates than other industries. At the low end of participation rates are agriculture (6.3%), private household (6.7%), construction (10.8%), and wholesale/retail (11.2%) industries. In addition, it is interesting to note that those industries that employ the largest number of workers, except for miscellaneous service, generally have lower rates of participation. When informal adult learning is considered, adults employed in business and professional fields are more likely to participate than those employed in agriculture, construction, transportation, and mining. When industry-sponsored education and training is examined, participation rates are generally similar. That is, as Table 10 suggests, finance and insurance industries have the highest rates of participation (20%), while manufacturing has the lowest (7%).

Region

Region also seems to affect participation rates, but only slightly. As Figure 8 shows, adults who live in the West have higher rates (17.9%)

TABLE 10

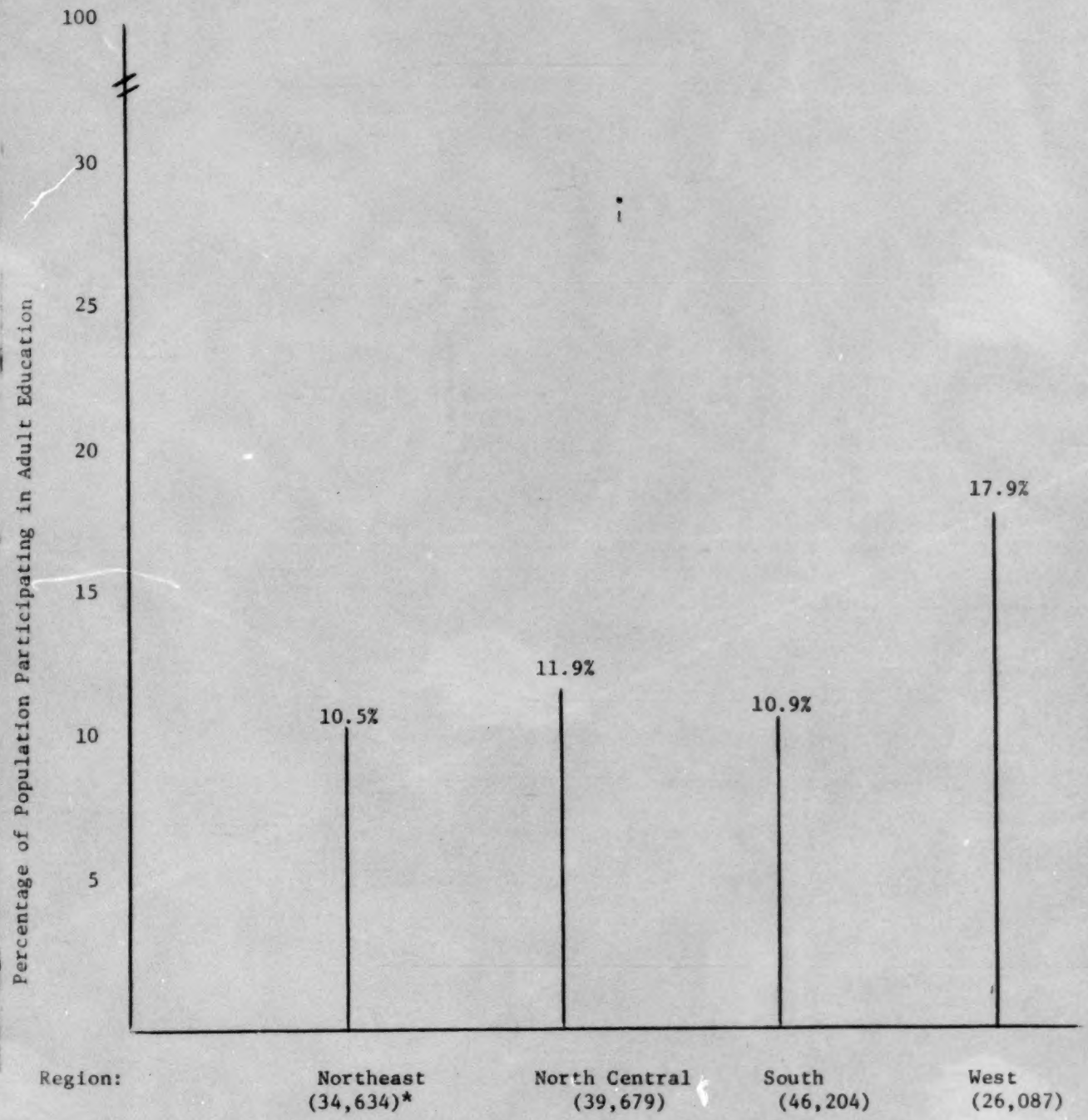
PARTICIPATION IN INDUSTRY SPONSORED EDUCATION AND TRAINING PROGRAMS BY TYPE OF INDUSTRY
(Percentage)

Industry	Participation Rate
Manufacturing	7%
Transportation, Communication, Utility	15%
Wholesale/Retail	12%
Finance and Insurance	20%
Other	13%

Source: Lusterman, 1977*

*Reproduced with permission.

PARTICIPATION IN ADULT EDUCATION BY REGION: 1975



*Base n (in thousands) for each adult population group. Percent is of this number.

SOURCE: Boaz, 1978

than adults who live in other regions. Except for the Western region, there are minor differences between the regions, with participation rates for the Northeast, North Central, and South at 10.5 percent, 11.9 percent, and 10.9 percent respectively. For adult learning, adults in the Pacific Coast states are more likely to participate than those in any other region, while adults in the South Atlantic states are less likely than in any other region (Bonham, 1979).

III. REASONS FOR PARTICIPATION

Since the decision to participate in a learning, education, or training program is a personal one, the reasons for participation are as numerous and different as the participants themselves. It is possible, however, to group these reasons into broad categories to enable a comparison of the aims and goals for adult participants.

In this section, we first present a general description of the categories of reasons for participation. This is followed by an examination of the distribution of participants in these categories, comparing subgroups of adults whenever possible.

Generally, reasons for adult participation in learning, education, or training fall into four broad categories: job or career; personal development or general information; social or recreational; and political or community. In Table 11, some of the more specific reasons under each category are presented, along with references to recent literature on each category.

As in the case of patterns of participation, the data on reasons for participation are very limited. A number of studies have looked into the reasons, but there has not been any systematic collection of information

TABLE 11

REASONS FOR ADULT PARTICIPATION IN LEARNING ACTIVITIES

CATEGORY	SPECIFIC REASONS	REFERENCES
Job or Career	• Learning new skills and knowledge to keep up with changing technology • Improving skills for current job • Promotion or increase in income • Career advancement • Career change • Acquisition of credentials	Baker, 1939; Davis, 1935; O'Meara, 1970; Boaz, 1978; Cross, 1978, 1979; Carp et al, 1976; Shore, 1979; Knox, 1979; Rosow, 1979; Botsman, 1975; Charner et al., 1978; O'Keefe, 1976.
Personal Development/ General Information	• Completion of an academic degree program (AA, BA, MA, or GED) • Acquisition of general knowledge • Remedial learning or basic skills • Consumerism • Retirement • Family living	Boaz, 1978; Botsman, 1975; Lusterman, 1977; O'Keefe 1976; O'Meara, 1970; Speer, 1976; Shore, 1979; Rosow, 197 Knox, 1979; Charner et al., 1976; Cross, 1979.
Social or Recreational	• Hobbies • Leisure	Cross, 1979; Boaz, 1978; Carp et al., 1976; Charner et al., 1978; O'Keefe, 1976; Rosow, 1979.
Community or Political	• Better citizen • Community activities • Political awareness • Union operation	Charner et al., 1978; Carp et al., 1976; Boaz, 1978; Dwyer, 1977.

on reasons for participation in different education or training programs for different subgroups of the adult population. Because of deficiencies in the data, we have used types of courses as a proxy for reasons for participation. That is, the description of the course serves as an indirect means of determining the reason for taking the course. For example, participation in a general education course could be considered to be participation for personal development or general information reasons, while courses in occupational training can, more than likely, be taken for reasons related to one's job or career.

Table 12 presents the reported main reason for taking courses for adult education participants for the years 1969, 1972, and 1975. In each year, the highest percentage is for the "improve or advance in current job" reason, followed by personal and family interests. In the six year time period, personal and family interest increased by almost 8 percent, while all of the other reasons remained relatively constant (a change of less than five percent). Employing the four broad categories outlined above results in the following distribution for 1975:

Job or Career	53.3%
Personal Development or General Information	41.4%
Social or Recreational	7.8%
Community or Political	2.6%

Clearly, the job or career and personal development or general information categories represent the primary reasons for participation in adult education.

When course description is used as a proxy for reasons for participation, the picture is generally the same. As Table 13 shows, almost 50 percent of adults participated in occupational training courses. The second largest category is general education (20.7 percent). The only

TABLE 12

MAIN REASON FOR TAKING COURSE FOR ADULT EDUCATION PARTICIPANTS: 1969, 1972, 1975 (in percents)*

MAIN REASON	1969	1972	1975
General Information	14.2	16.0	13.7
Improve or Advance in Current Job	45.2	42.7	41.8
Get a New Job	10.9	11.3	11.5
Community Activity	2.6	2.7	2.6
Personal and Family Interests	19.8	23.5	27.7
Social and Recreational Interests	6.7	6.5	7.8
Other	9.4	7.9	5.9
N (in thousands)	13,041	15,734	17,059

SOURCE: Boaz, 1978

*Participants who reported the same course characteristic in regard to two or more courses were counted once (but no more than once) within that course characteristic. Participants were counted once however, in each course characteristic that they reported. Therefore, columns may add to more than the total number of participants and to more than 100.0 percent. Furthermore, details may not add to totals because of rounding.

TABLE 13

DESCRIPTION OF COURSE FOR ADULT EDUCATION PARTICIPANTS: 1969, 1972, 1975 (in percents)*

DESCRIPTION	1969	1972	1975
General Education	27.2	25.9	20.6
Occupational Training	44.6	46.5	48.7
Community Issues	9.2	9.8	10.0
Personal & Family Living	12.1	14.0	14.8
Social Life and Recreation	11.9	12.0	15.9
Other	3.9	2.6	2.6
N (in thousands)	13,041	15,734	17,059

SOURCE: Boaz, 1978

*Participants who reported the same course characteristic in regard to two or more courses were counted once (but no more than once) within that course characteristic. Participants were counted once however, in each course characteristic that they reported. Therefore, columns may add to more than the total number of participants and to more than 100.0 percent. Furthermore, details may not add to totals because of rounding.

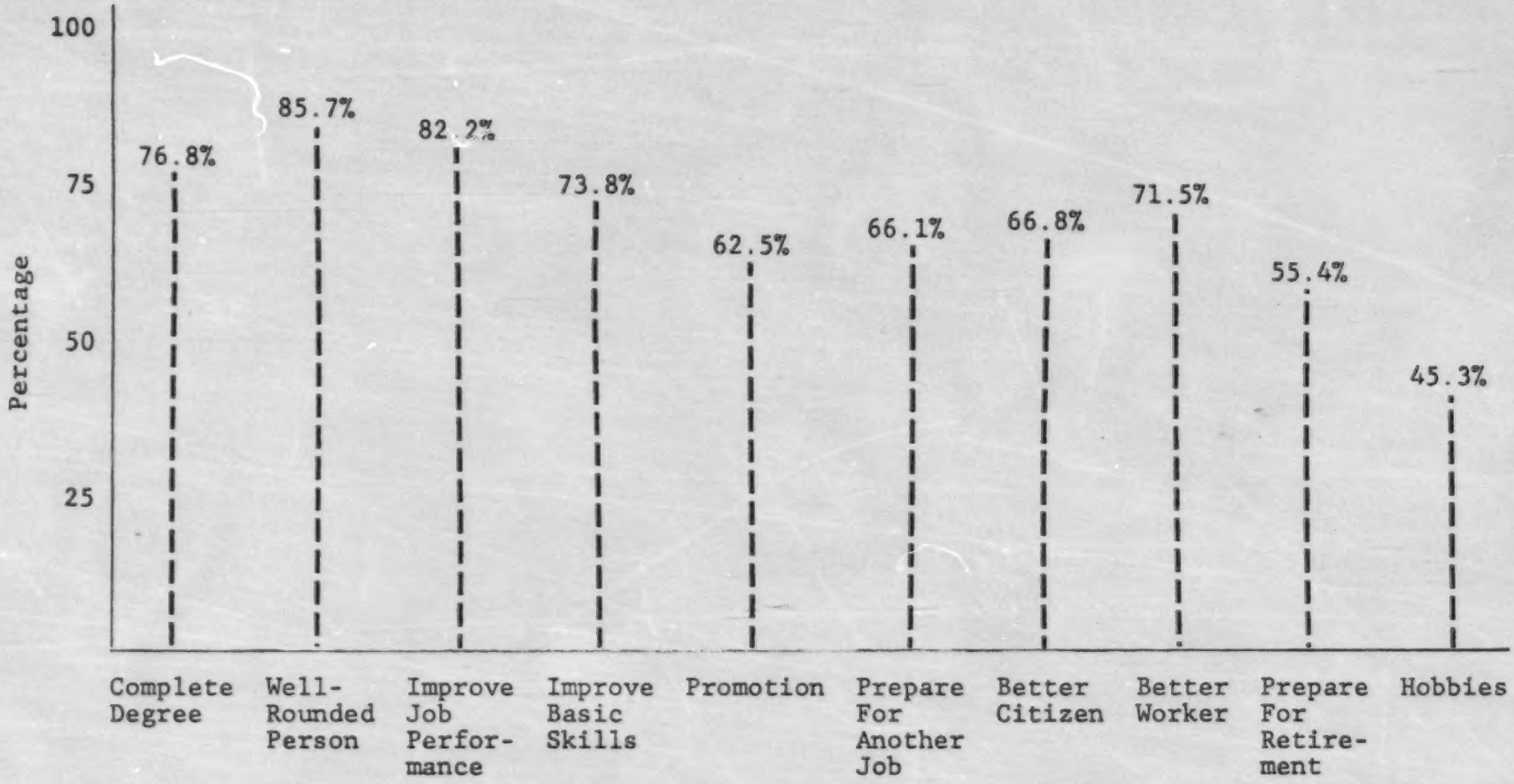
type of course that changed by more than 5 percent from 1969 to 1975 was general education.

In a recent study (Charner et al., 1978), workers were asked to assess the importance of a number of outcomes of further education and training. Here again, this assessment can be viewed as a substitute for "reasons" for participating. It must be remembered, however, that the assessment is for all workers in the study, not only those who participated in education. As Figure 9 shows, a majority of these workers feel that education is important for a wide variety of reasons. Being a well-rounded person and improved job performance are considered important by the largest percentage of workers (85.7 and 82.2 respectively), but other reasons are also important for a large majority. In considering the four broad categories outlined earlier, only social or recreational reasons are not reported by a majority of workers as being important.

When reasons for participation are looked at for different groups of workers (minorities, women, less educated, etc.), the findings show some very interesting differences. Table 14 presents the reasons for participating in adult education for adults with different levels of educational attainment. For those with less than a ninth grade education and workers with a ninth to eleventh grade education, personal and family interest is the most important reason for participating. For workers with more education (high school but less than four or more years of college), the most important reason is to improve or advance in one's current job. This is particularly true for the highest educational attainment group. This may suggest that those with "better" jobs (due in part to educational attainment) view education as a means of improving or advancing in their occupations, while those with "worse" jobs are

FIGURE 9

WORKER ASSESSMENTS OF THE IMPORTANCE OF VARIOUS OUTCOMES OF FURTHER EDUCATION AND TRAINING[1]
(910 WORKERS)



[1]Percentages represent those workers who responded "important" or "very important" to the question.

SOURCE: Charner et al., 1978

TABLE 14

MAIN REASON FOR TAKING COURSE BY PRIOR EDUCATIONAL LEVEL OF PARTICIPANTS: 1975
(in percentages)*

Main Reason	Less than 9th Grade	9-11th Grade	H.S. but less than 4-yr Coll.	4 or more years College
General Information	15.9	13.6	12.7	12.6
Improve or Advance in Current Job	22.7	25.6	37.3	50.2
Get a New Job	10.4	15.3	12.3	5.5
Community Activity	2.4	2.4	2.8	1.8
Personal or Family Interest	36.4	32.5	26.6	22.5
Social or Recreational Interest	6.0	5.1	7.1	7.7
Other	7.3	7.1	5.1	5.7
N (in thousands)	546	12,839	10,839	5,973

SOURCE: Boaz, 1978

*Participants who reported the same course characteristic in regard to two or more courses were counted once (but no more than once) within that course characteristic. Participants were counted once however, in each course characteristic that they reported. Therefore, columns may add to more than the total number of participants and to more than 100.0 percent. Furthermore, details may not add to totals because of rounding.

less likely to use education for advancement or improvement in their current occupation. It is interesting to note that a considerably lower percentage of workers in the highest education group than in the other groups cited "to get a new job" as their main reason for participating.

When workers were asked to describe their courses, a similar trend is found, though not as strong. As Table 15 shows, the two groups with the highest educational levels participate in occupational training courses more often than those workers with lower educational levels. One additional set of findings should be noted. General education courses are utilized by a larger percentage of workers with less education than those with more education. It seems plausible that these groups (with less education) feel that a general education may be important for job or career advancement even though it is not direct occupational training.

Differences in reasons for participating and in the description of courses are also found between men and women from different racial groups. Table 16 compares the reasons for participation by race and gender. It suggests the following:

- White males had the highest percentages of participation for job improvement for advancement reasons. The males in all three groups had higher percentages than the females on this reason.
- Black males and females had higher percentages for the reason "to get a new job" than any other group.
- White females and "other" females had higher percentages for the reasons of personal or family interest than any other group. For whites and "other," a larger percentage of females reported this reason than for males. For blacks the percentages were about equal.
- Social or recreational interest was the reason for a larger percentage of white and "other" females than for any other groups.

TABLE 15

DESCRIPTION OF COURSE BY PRIOR EDUCATIONAL LEVEL
OF PARTICIPANTS: 1975
(in percentage)*

Course Description	Less than 9th Grade	9-11th Grade	H.S. but less than 4-yr Coll.	4 or more years College
General Education	28.4	28.7	17.3	20.6
Occupational Training	32.4	28.1	47.1	48.5
Community Issues	13.0	12.3	9.7	7.5
Personal & Family Living	12.6	12.0	14.1	13.8
Social life & Recreation	11.9	11.8	15.4	14.0
Other	5.1	2.1	2.4	1.8
N (in thousands)	546	12,830	10,839	5,973

SOURCE: Boaz, 1978

*Participants who reported the same course characteristic in regard to two or more courses were counted once (but no more than once) within that course characteristic. Participants were counted once however, in each course characteristic that they reported. Therefore, columns may add to more than total number of participants and to more than 100.0 percent. Furthermore, details may not add to totals because of rounding.

TABLE 16

MAIN REAONS FOR TAKING COURSE BY RACE AND GENDER OF PARTICIPANTS: 1975
(in percentages)*

Main Reason	White		Black		Other	
	Female	Male	Female	Male	Female	Male
General Information	13.9	13.8	12.9	9.0	9.7	14.2
Improve or Advance in Current Job	31.2	53.4	41.8	45.2	25.8	46.2
Get a New Job	11.6	10.1	21.2	21.7	13.1	9.7
Community Activity	3.1	2.3	1.7	1.1	4.4	2.0
Personal or Family Interest	36.5	18.9	19.6	21.2	36.4	25.7
Social or Recreational	11.3	4.7	1.1	1.1	15.6	3.6
Other	5.2	6.3	10.4	3.5	7.7	9.2
N (in thousands)	8,240	7,499	627	404	165	124

SOURCE: Boaz, 1978

*Participants who reported the same course characteristic in regard to two or more courses were counted once (but no more than once) within that course characteristic. Participants were counted once however, in each course characteristic that they reported. Therefore, columns may add to more than the total number of participants and to more than 100.0 percent. Furthermore, details may not add to totals because of rounding.

- Black males and females were more similar in their reasons than the males and females of the white or "other" racial groups.

When course description is employed as the proxy for reason for participating, similar findings are uncovered. Table 17 shows the following trends:

- A higher percentage of males than females in all racial groups described their courses as occupational training. The percentages are highest for "other" and white males.
- A higher percentage of females than males in all racial groups described their courses as general education with black females reporting the highest percentage.
- White and "other" females had considerably higher percentages of participants in social or recreational courses than any other group.
- The same trend as above was found for personal or family living courses.
- Black males and females were more similar in their course descriptions than the males and females of the white or "other" racial groups (although less similar than for reasons for participating).

To conclude this section on reasons for participation, the following observations seem reasonable. First, most workers report that they participate for career- or job-related reasons, most notably job improvement or advancement. Second, a relatively large group of workers participate for reasons of personal development. This is particularly true for women and workers with lower levels of educational attainment. Third, there are differences in reasons for participating depending on a worker's gender, race, and level of education. Fourth, the reasons given for participation are not always congruent with the descriptions of the courses taken, suggesting that in at least some instances courses may be taken for more than one reason. Finally, workers participate in a wide variety of courses for many different reasons, ranging from career to personal, social, or political.

TABLE 17

DESCRIPTION OF COURSE BY RACE AND GENDER
OF PARTICIPANTS: 1975*
(in percentages)

Course Description	White		Black		Other	
	Female	Male	Female	Male	Female	Male
General Education	21.6	17.2	43.8	27.6	28.7	9.1
Occupational Training	36.3	62.4	43.9	54.7	36.3	69.6
Community Issues	10.5	10.2	4.9	6.3	.6	4.7
Personal & Family living	19.7	10.3	8.9	10.2	16.7	9.7
Social Life & Recreation	24.2	8.3	3.4	3.8	27.0	10.9
Other	2.9	2.3	2.7	1.8	3.4	5.9
N (in thousands)	8,240	7,499	627	404	165	125

SOURCE: Boaz, 1978

*Participants who reported the same course charcteristic in regard to two or more courses were counted once (but no more than once) within that course characteristic. Participants were counted once however, in each course characteris that they reported. Therefore, columns may add to more than the total number o participants and to more than 100.0 percent. Furthermore, details may not add totals because of rounding.

IV. REASONS FOR NONPARTICIPATION

Just as there are many reasons for participating in education, there are a large number of reasons for not participating. These reasons or factors can be classified under three headings: situational, social psychological, and institutional. In this section we discuss the factors that fall under each heading. Whenever possible, reasons for nonparticipation in education and nonparticipation in tuition-aid programs are detailed. In addition, if certain factors affect population subgroups differently, these are discussed. In Table 18, some of the specific factors under each heading are presented.

Situational Factors

Situational factors are those which arise out of one's position in a family, the workplace, social group, etc. at a given time. In surveys of adults, situational factors are most often reported as barriers to participation in learning, education, or training. Costs and lack of time are the two situational factors which lead this group. Cross (1978) estimates that about one-third of all adults report that these two factors are obstacles to participation in education. Botsman (1975), in a study of blue-collar workers, found 48.3 percent perceiving costs of tuition as a barrier and 30.7 percent perceiving not enough time as a barrier to learning. Carp et al. (1976), in their study of would-be learners, found 53 percent reporting that costs and 46 percent reporting that lack of time were barriers to their learning. For participation in tuition-aid programs, costs (26.0 percent) and lack of time (32.9 percent) were reported as barriers by a smaller percentage of adult workers (Charner et al., 1978). This difference in the cost factor is due, no doubt, to the fact that

TABLE 18

REASONS FOR ADULTS NOT PARTICIPATING IN LEARNING ACTIVITIES

Category	Specific Reasons
Situational Factors	. Costs . Lack of time . Age . Prior educational attainment . Home responsibilities . Job responsibilities . Number of dependents . Occupational status . Level of income
Social Psychological Factors	. Lack of confidence in ability . Feeling too old . Low self-concept . Tired of school . Lack of interest . Family or friends don't like the idea . Hesitate to seem too ambitious
Institutional Factors	. Course scheduling . Work schedule . Lack of transportation . Inconvenient location of courses . Lack of relevant courses . Financial support restrictions . Too long to complete program . Don't want to go full-time . Too much red tape . Lack of information on courses . Lack of information on support assistance . Inadequate counseling

tuition-aid is a financial resource for education pursuits. It is clear, however, that for both learning and education generally and for tuition-aid programs specifically, lack of time and cost factors are barriers to participation.

Women, in general, are reportedly more affected by cost constraints than are men, while lack of time is reported as a problem for more men than women. Costs are also more problematic for younger adults (under 35) than for older adults, while lack of time is a problem for the middle age group of adults (Carp et al., 1976).

With regard to racial differences, whites are more inclined to mention lack of time as a barrier than are blacks. Blacks, on the other hand, report costs to be a barrier more often than whites. Finally, differences in the importance of these two factors are also related to educational level. Cost factors are reported as barriers more often by those with less education, while time factors are more problematic for those with higher levels of educational attainment (Carp et al., 1976).

In typical surveys, respondents are asked to check those factors that are barriers to their participation. Costs and lack of time are situational factors that individuals can report as barriers to their participation in education. Two situational factors that are not usually part of these lists, but which are assessed in other ways, are age and previous education level. In almost every study of adult participation in education, age and education are found to be related to participation and thus in a negative sense act as barriers to participation. The relationships between participation in education and age and previous educational attainment were shown in an earlier section of this paper. We showed that participation rates increase as level of educational attainment increases,

and rates decrease as age increases. Further, the real impact of these two factors emerges when they are used as a basis for elaborating baseline data. That is, for almost every reported perceived barrier, there are significant differences between age groups and level of educational attainment groups.

Among situational factors, then, costs, lack of time, age, and previous education level are the most strongly related to participation in education or tuition-aid. Other situational factors that have been found to act as barriers to participation in education or tuition-aid programs for adults include: home responsibilities, job responsibilities, not enough of the costs covered through tuition-aid benefits, inability to pay in advance even if company repays, number of dependents, occupational status, and level of income. Numbers of dependents, occupational status, and income operate in a similar manner as age and education, with their impact emerging when they are used as control factors or in their relation to participation rates.

Before turning the discussion to the next category of factors, it is important that we highlight a potential problem with the situational factors. Cross (1979), in her review of state-wide studies of adult learners, suggests that many situational factors may represent socially acceptable responses to "why a person does not participate in educational activities." Lack of time and money are both acceptable reasons for not participating, and it is not surprising that they rank high on the perceived barriers list. In one study (Wilcox et al., 1975), respondents were asked to report barriers to their own learning and to speculate on why other adults did not participate. Lack of interest was attributed to others (26 percent), but only 2 percent admitted that lack of interest deterred their own participation. Costs, however, were a problem for respondents (18 percent) more than for others (11 percent). Social acceptability of situational factors may therefore be a response bias in surveys of this type.

Related to this problem is the fact that many who cite costs or time as barriers may have no idea of the costs of various options or the time required for different programs or options. Future surveys should look at knowledge of costs and time requirements to provide a sounder basis for assessing these two situational barriers.

Social-Psychological Factors

Social-psychological factors are those related to the attitudes and self-perceptions one has or to the influence of significant others (family, friends, etc.) on the actions of the individual. These factors are reported as barriers by a relatively small proportion of adults. Carp et al. (1976) found only 12 percent of their sample reporting lack of confidence and 17 percent who felt they were too old to begin. Botsman (1975), in his study of blue-collar workers, reported 21 percent feeling too old to begin and 18 percent with a lack of confidence in ability. Finally, Charner et al. (1978) found 6.1 percent of unionized workers in the sample feeling they were too old and 8.8 percent not wanting to take any courses. Other factors that were mentioned as barriers which fall into this category include: "don't enjoy studying", "tired of school", "lack of interest", "friends or family don't like the idea", and "hesitate to seem too ambitious." Each of these other factors were reported as a reason by less than 10 percent of adult workers. Compared to the situational factors, these social-psychological factors are not perceived as barriers by a large group of workers.

Women more frequently than men report that they feel they are too old to begin. Men, on the other hand, cite lack of confidence in ability more than women. These are the only two factors, in this set, where there are reported differences for men and women. Variation by age is found for

lack of confidence in ability and feeling too old to begin, with younger workers more often reporting a lack of confidence and, not surprisingly, older workers more often feeling too old to begin (Carp et al., 1976).

Racial differences are found only for lack of confidence in ability, with many more blacks than whites mentioning this as a barrier. Differences related to educational level show those with less education citing lack of confidence in ability more often than those with more education. Unlike the situational factors, there are only a few differences between groups of workers on the social-psychological barriers, and these differences are often small (Carp et al., 1976).

As with the situational factors, there are problems with measurement for this set of factors. Social-psychological factors are opposite situational factors in social acceptability, and response bias may result. Cross (1979) suggests that the importance of these factors is probably underestimated in surveys because they are less socially acceptable responses than are other reasons for nonparticipation. A second problem for determining the "real" impact of social-psychological factors is methodological in nature. That is, respondents who are not interested in further education are often dropped from analyses or self-select themselves out by not responding to barrier questions. The remaining group is considered "potential" learners. Potential learners are probably less affected by social-psychological factors than those adults who say they have no further interest in education. As Cross states:

> We might get higher counts for dispositional (social-psychological) barriers if we asked those who said they were not interested in further learning the reasons for their lack of interest. . . No doubt the largest counts for dispositional barriers are found among those who are not participating in educational activities (1979: 109).

Estimates of the group of adults who are not interested in participating in education or training range between 45 and 65 percent of the total and differ between groups of adults based on age, income, educational level, and occupational status. Even if only half of these adults would give social-psychological reasons for their lack of interest, the proportion of adults perceiving such factors as barriers would be as large as any of the situational factors. This has obvious implications for policy and program initiatives.

Institutional Factors

Institutional factors are policies and practices of organizations that overtly or subtly exclude or discourage adult workers from participating in learning programs. Institutional factors fall between the other two categories of factors in the proportion of adults reporting such factors as deterring their participation. The array of institutional factors can be grouped into five problem areas: scheduling, location/transportation, lack of courses, application and approval procedures, and information. Of these, location, scheduling, and lack of interesting or relevant courses are most often mentioned as barriers to learning. Cross (1978), in a review of studies of the needs and attitudes of adult learners found that generally, one-fourth of all survey respondents reported these as barriers to their participation.

Lack of information has been found to be a factor affecting participation by relatively fewer respondents (Cross, 1978). Carp et al. (1976) found only 10 percent of would be learners reporting lack of information as a barrier. When different groups of workers are looked at, however, the findings differ. Lack of information was cited by 18 percent of blue-collar workers (Botsman, 1975), and 42.6 percent of unionized workers (Charner

et al., 1978). In addition, 43.6 percent of unionized workers reported they lacked information about their negotiated tuition-aid program (Charner et al., 1978). In one study that asked about counseling, 50.7 percent felt they did not receive enough counseling about available courses or whether they were qualified to take them (Charner et al., 1978).

Despite the fact that between 10 and 40 percent of adults cite lack of information as a barrier, there is evidence that many more have inadequate information about available options. As Cross suggests, "One wonders if many perceived problems with schedules, locations, and courses are not ultimately due to lack of information about the options that do exist" (1978: 15).

Since many educational institutions are rapidly responding to the barriers of scheduling, location, and courses, the critical institutional barriers remaining unattended are lack of information and inadequate counseling. As more options become available, the importance of these two factors will increase and policy and program decisions should reflect this change.

There are many problems that deter adults from participating in education. Policy and program efforts must be responsive to these, both in terms of developing new initiatives and in better understanding the situational social-psychological and institutional factors that act as barriers.

V. SUMMARY AND POLICY IMPLICATIONS

In this paper we have examined the demographic patterns of adult participation in education and reviewed the reasons for participation and nonparticipation in further education. A summary of the findings is presented in this section, followed by an exploration of some of the policy implications and recommendations that emerge from the findings.

Summary

In the section on demographic characteristics, a description of the patterns of adult participation in education and learning activities was presented. Whenever possible, the description was broken down for various subgroups of the adult population. A summary of these patterns suggests the following:

- Participation in adult education has been increasing over the past ten to fifteen years. In 1975, 11.6 percent of all adults participated in adult education. The rate of increase over the last decade, however, has been declining.
- The participation rate in industry-sponsored education and training is currently at about 13 percent, while use of tuition-aid benefits has been estimated at 3 to 5 percent nationally.
- Younger adults participate in adult education, adult learning and tuition-aid programs at a higher rate than older adults.
- Blacks participate in adult education, adult learning, and tuition-aid programs at lower rates than whites. "Other" racial groups not only participate at the highest rates, but the increase in their participation has been the greatest over the past ten years.
- There are no real differences in participation patterns between women and men. Women, however, have increased their rates over the last ten years by a larger percentage than men.
- Prior educational attainment is the factor most closely related to participation. With every increment in education, participation increases. Also, rates of change over the past ten years are highest for those with more education.
- Employed adults are more likely to participate than unemployed adults.
- Participation is directly related to income. For every increment in income level, there is a marked increase in participation rates. The most dramatic increases in participation rates in the past decade are found in the highest income groups.
- Professional and technical workers participate at a higher rate than other occupation groups and farmers at a lower rate.
- Adults in business, service, and professional industries have higher rates of participation than those in other industries. Generally, industries that employ the largest number of workers (wholesale/retail and manufacturing) have lower rates of participation.

- Adults from the western regions of the United States participate at a higher rate than those from other regions.

- Generally, younger, white, well-educated, higher income, higher occupational status adults currently have the highest rate of participation in education/training.

In the discussion of reasons for participation in education by adults, overall patterns were presented and different groups of adults were contrasted on their reasons for participation. Findings include the following:

- Job- or career-related goals are the reasons given by the largest percentage of adults who participate in education/training.

- Mobility--horizontal, vertical, and within job--is an important reason for participation.

- Learning new skills to meet changing technology is an objective for many participants.

- A relatively large proportion participate for personal fulfillment, to acquire knowledge for its own sake, and for family interests.

- Community/political and social/recreational reasons are not given by many participants.

- As level of education increases, so does the percentage of workers participating for career or job reasons.

- As level of education increases, the percentage participating for personal or family interests decreases.

- Blacks, both male and female, participate to get a new job more often than whites.

- Black males and females were more similar in their reasons for participating in education than males and females from other racial groups.

In the section on reasons for nonparticipation, discussion of the barriers to adult participation in education was presented. These factors were classified under the headings situational, social-psychological, and institutional. Research findings were discussed under each heading, and problems with the factors were also discussed. The following major points emerged: First, situational factors are most often reported as barriers,

and within this category, costs, lack of time, age, and level of education head the list. There are many differences between population subgroups on these situational factors. Also, situational factors may be overreported because they are socially acceptable reasons for nonparticipation. Second, social-psychological barriers are cited by relatively few adults. Only a few differences can be found between population subgroups. These factors may be underreported because they are not socially acceptable reasons and because those "not interested" in further learning are often dropped from analyses. Third, a wide array of factors comprise the institutional barriers category. Scheduling, location, and lack of courses rank highest in this group. Lack of information was also high but would probably be higher because some of the other institutional problems may ultimately be due to lack of information. Inadequate counseling was also found to be a structural barrier. With regard to the response of institutions of higher education to these barriers, the tendency has been toward addressing scheduling, location, and course needs rather than information and counseling concerns.

Recommendations

Data Needs

The first set of recommendations revolve around the general need for a better and more comprehensive data base related to the issues raised in this paper. Currently, there does not exist a single data base which examines patterns of participation in adult education, industry-sponsored education and training, and tuition-aid programs; reasons for participation; and barriers to participation. Such a data set on a large number of workers from all sectors of the workforce is clearly needed. Care should be taken to include adequate representation of women and minorities in developing the

sampling plan. With such a data set, a more complete picture of the attitudes, plans, and behaviors of adults vis-a-vis education could be developed and policy decisions grounded on more reliable information. In planning such a study, thought should be given to adding a longitudinal component which emphasizes patterns of occupational mobility; attitudinal and behavior change; and learning, education, and training. This type of longitudinal information could provide valuable insights on: (a) tracking patterns of adult participation in learning activities, (b) assessing the long- and short-term nature of barriers to participation, (c) the impact of different learning experiences on mobility, attitudes, and behaviors, and (d) the affect of institutional, as well as local, state, and federal, initiatives that have been developed to increase the learning opportunities for adults.

Related to this first recommendation is the need for alternative methods of data collection, particularly with regard to barriers. The traditional survey approach suffers from what is termed response bias due to social acceptability/unacceptability of certain responses. Alternative approaches are needed to better assess the social-psychological and situational reasons for nonparticipation. Small-scale studies with intensive interviews can be used to begin to better understand these problems. From this, new survey instruments can be developed which better assess the "real" reason for participation and nonparticipation by adults in education. In addition, case studies of different adult learning, industry-sponsored, tuition-aid, and support service programs can help identify and document those components that respond to the learning needs of different groups of adults. Decision makers in educational institutions, business, or government can use such information for the development of new programs or to

modify existing programs to enable them to better meet the needs of adults related to learning, education, and training.

Support Services

Our second set of recommendations concerns support services for adult workers. Here we first discuss the development of new services and then suggest research studies that should naturally grow out of such program interventions.

The findings presented in the earlier sections of this paper show both a direct and indirect need for information and counseling or brokering services for adult workers. That lack of information is a barrier to participation has been shown in many studies (see Cross, 1979 for a review). In addition, other reported barriers (the structural factors discussed earlier) may be due to lack of information. New programs need to be developed which respond to these information and counseling needs of adult workers vis-a-vis education. Such programs should provide information about education offerings, financial resources, potential outcomes, and personal development. Educational brokering services (see Heffernan et al., 1976) and the Congressionally mandated Education Information Centers represent more large-scale approaches to the information-counseling needs of adult workers. At a more local or small-scale level, a number of programs are currently being developed which seek to provide educational information and brokering services to adult workers.

The National Manpower Institute, under contract with the National Institute of Education, has developed and is testing three models that respond to these barriers. The first removes barriers that result from lack of information and apprises workers about the nature of the tuition-aid plan available to them. This model is being undertaken in Pamona, California,

with General Telphone of California and the Communication Workers of America (District 11). The second model, involving Local 18 of the International Union of Operating Engineers (Cleveland, Ohio), adds to model one the establishment of an educational information/counseling service. The third model adds to this a way to improve the linkages between the workplace and the education providers. It is being undertaken in Hartford, Connecticut, by the State of Connecticut Personnel Department, the Connecticut State Employees Association, the Connecticut Employees Union Independent, and the Higher Education Coordinating Committee for the North Central Region.

The College Board, with funds from the Office of Career Education, has been developing and testing the notion of Study Organizer Centers. This approach is designed to improve worker access to educational opportunities by providing both a "Study Organizer" and materials and products, located close to industrial settings where workers can seek advice and information on a regular basis. Finally, the American Center for the Qualify of Work Life (ACQWL), with support from the Fund for the Improvement of Postsecondary Education, is adapting the educational brokering concept at two industrial settings. The ACQWL approach argues that the workplace can become the locus for the development of learning activities and that educational brokering is a service that can assist workers in becoming the principal organizers and promoters of increased continuing learning activities in their own work setting. Each of these intervention programs is aimed at improving information and providing educational brokering/counseling to workers in an attempt to overcome problems associated with worker participation in education programs. Additional modifications and adaptations of these approaches need to be developed to provide information and brokering services to larger numbers of adult workers.

Earlier, we provided evidence that age and level of prior education are determinants of adult participation in education. While the provision of information and brokering services represents essential early steps in the process of increasing participation in education programs for older or less well educated workers, there is a prior step which is critical. Special outreach efforts are necessary to bring such workers to the source. That is, unless we can "turn on" these workers to seek out information and brokering services, they will not avail themselves of such programs. Innovative approaches need to be devised to reach the older and less-educated adult worker.

For many workers, lack of time was reported as a major situational factor for their nonparticipation. For women, the time factor is often related to home/child responsibilities, while for men it is more often related to job responsibilites. These findings suggest the importance of expanding the availability of good child care services to enhance the opportunities for women to participate more fully in educational activities. Also, experiments with educational leave (paid and unpaid) should be undertaken at the workplace. Both approaches should free up more time for workers to participate in education and training programs.

Related to any new program intervention is the need for solid evaluation evidence. For information and counseling programs, it is important to assess the impact of such interventions to determine the effect on knowledge, attitudes, and behaviors of increased information and improved counseling. Such assessments will help answer the question: Is it that the reported barriers of information and counseling represent socially acceptable survey responses or that these are "real" barriers which, when overcome, result in increased participation? The answer to

this question seems critical for setting the direction of future program efforts aimed at facilitating increased worker participation in education programs.

It is also important to look at the effects on workers of participation in education and training programs. It is important to know what happens in terms of job mobility, increased skills or knowledge, self-confidence, satisfaction, etc. Programs which deliver information or provide counseling to workers could use such findings as an additional information base for workers. Regardless of how such findings may be used for program purposes, it seems critical for decision makers, at all levels, to know about the longer-term effects on workers and the workplace resulting from participation in education and training programs.

Instruction

Among the more significant structural reasons given by workers for nonparticipation in education are scheduling and location problems. Despite the fact that scheduling and location changes are the oldest and most common response of educational institutions, these are still cited as problems for many adult workers. These institutions need to experiment with delivery in new places (community agencies, work site, union hall) and with scheduling which is convenient to workers.

For the course offerings themselves, a number of considerations should be taken into account. First, there is a need to show relevance of the educational offering to the work and life situations of the workers. Second, courses should be of relatively short duration. Finally, wherever possible, courses should be provided in a supportive setting. Study circles, recently experimented with in Sweden, provide such a setting in which groups of workers can determine the nature of their course undertakings

Other areas related to instruction which need to be rethought are admissions and certification. Open admissions policies seem to be critical for many adult workers who have been away from the educational establishment for a long time. By opening admissions, more diverse opportunities can be made available to adult workers. Credit and non-credit options must also be increased to broaden the opportunities for workers. Credit for experience and external degree programs seem to be approaches from which many workers could benefit. Finally, new degree programs need to be developed in areas that are relevant to working adults. These may include programs in labor studies, consumerism, or parenting, but relevance to everyday situations is very important.

One final area which needs to be explored is the use of media and advanced technologies for instructional purposes. It seems that these have great potential for overcoming many of the barriers mentioned by workers regarding their nonparticipation in education.

In summary, this paper has presented a discussion of the pattern of participation by adults in learning, education, and training. We first described the current make-up of participants, showing that younger, better-educated, higher-status, higher-paid, white workers participate at a higher rate than other workers. We then discussed the wide array of reasons for participation and showed that the majority of adults participate for work-related reasons or to increase their general knowledge. This was followed by an examination of the reasons for nonparticipation which suggested that while situational and structural factors were most often reported as reasons, social-psychological factors may be equally important and need to be better understood. In the final section, we presented a summary of the pattern of adult participation and recommendations

for policy, research, and programs which emerged from the earlier presentation. The need for a better data base from which to examine further both patterns of participation and factors affecting rates of participation should not preclude serious attention to the policy and program recommendations put forth in this paper.

APPENDIX A:

DATA SOURCES ON ADULT LEARNING, EDUCATION, AND TRAINING

A. Participation in Adult Education. (Boaz, 1978)

This survey was conducted by the Bureau of the Census under contract with the National Center for Educational Statistics. The survey documents adult participation in education in May 1975 and compares these rates to rates in May 1969 and May 1972. The survey looks at 17,059,000 participants in adult education who were not full-time students and provides demographic characteristics of this group of adults. Adult education was defined as "organized learning to meet the unique needs of persons beyond compulsory school age (17 years or older) who have terminated or interrupted their formal schooling."

The estimating procedure used for the data involved the inflation of weighted sample results to independent estimates of the civilian non-institutional population of the United States by age, race, and sex. The independent estimates are based on statistics from the 1970 Census of Population; statistics on birth, immigration, and emigration; and statistics on the strength of the Armed Forces.

Of the 11,166 persons in the May 1975 survey identified as participants in adult education by adult education screener items, 9,713 completed the supplemented Survey of Adult Education form. Adjustments for the 1,453 non-respondents were made by applying appropriate factors to the data of the respondents.

B. Education in Industry. (Lusterman, 1977)

This study examines industry education and training systems that are designed to adapt employees' skills for new technology. The data are based on 610 responses to questionnaires sent to companies with 500 or more employees. The study looks at the use of outside resources for education and training as well as internal programs offered at the workplace. The relatively low response rate of 22 percent, combined with the fact that responding companies provided more training than nonresponding companies, is a problem with the study. The study provides information on availability of different types of training, numbers and types of employees receiving training, costs of training, and distribution by industry.

C.1. Tuition-Aid. (O'Meara, 1970)

This is a study of 200 companies that offer tuition assistance to employees. These companies employ approximately 5 million people, with a median size of between 10 and 25 thousand employees. The study is limited to companies with tuition-aid plans and provides data on plan provisions, administration, costs, participation, and impacts.

C.2. Tuition-Aid. (Charner et al., 1978)

As part of a larger study of tuition-aid in the private sector, the National Manpower Institute undertook a survey of company and union officials and a survey of workers. Fifty-one company and 52 union officials responded to the first survey. Data on workers were obtained from questionnaires completed in the fall of 1977 by workers covered under negotiated tuition-aid plans. The sample of workers is over-representative of workers interested in education and training and of participants in tuition-aid programs. Information was collected on participation, knowledge of plans, barriers, educational attitudes, and background characteristics.

C.3. Tuition-Aid. (Abramovitz, 1977)

As part of a larger study of tuition-aid use in three companies, the Institute for Education and Research on Women and Work of Cornell University undertook a survey of company and union officials and workers. Information on workers was obtained from questionnaires completed by 926 union members at the three companies. The sample of workers tended to be well educated, skilled,and well paid. The study objectives were to learn about barriers to the utilization of tuition-aid and benefits by workers, especially women workers. Data were collected on participation, barriers, and background characteristics.

D.1. Adult Learning. (Carp et al., 1978)

This survey was conducted by the Educational Testing Service and the Response Analysis Corporation for the Commission on Non-Traditional Study in the summer of 1972. A national probability sample of 2,515 households was drawn to represent approximately 104 million persons between 18 and 60 years of age who were not full-time students.

Of the 2,974 people who were asked to respond, 2,004 (or 67 percent) in a total of 1,248 households completed the form. Another 7 percent could not be reached after three return visits, and the remaining 26 percent refused to participate for one reason or another. The responses of the 111 full-time students who were surveyed have been omitted from the analysis. Each of the remaining 1,893 respondents in the final sample was assigned a weight to make the sample comparable to the general American adult population exclusive of full-time students. This weight combined three adjustments, accounting for (1) the size of the respondent's household; (2) its geographic location; and (3) the age, sex, race, and educational attainment of the respondents. These adjustments resulted in a weighted

sample size of 3,910, which is the basis for all statistics presented in this paper.

This survey was designed to cover learning interests, barriers to learning, reasons for learning, recent learning activities, and demographic characteristics.

D.2. Adult Learning. (Bonham, 1979)

As part of a larger program titled Future Directions for a Learning Society, funded by the Exxon Educational Foundation, the College Board undertook a study of adults in transition. A representative sample of 1,500 adults were surveyed to profile today's adult learner. The study compares the demographic characteristics of learners and nonlearners and identifies those subgroups of adults who are potential learners.

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The National Institute for Work and Learning (formerly the National Manpower Institute) is a private, not-for-profit, policy research and demonstration organization established in Washington, D.C. in 1971. NIWL is concerned with encouraging public and private sector policies and practices that contribute to the "fullest and best use of the life experience"; with eliminating artificial time-traps which segment life into youth for schooling, adulthood for working, and the rest of life for obsolescence; and with a more rational integration of education, employment and training, and economic policy.

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Dr. Herbert Levine, Director of the Labor Education Center at Rutgers University has assisted NIWL on this project as Senior Study Consultant. The project has been advised and informed as well by a National Advisory Committee of representatives from companies, unions, and education institutions.

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